

AMERICAN AGRICULTURIST,

FOR THE
Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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EDITOR AND PROPRIETOR.

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Nineteen Years.

"Farewell to the teens" were the closing words sent to the printer last month. The opening of the twentieth year is, to us, an event of no little significance. May we then be excused for indulging in a little self-complacent talk?.... Glancing at our book shelves, there stand nineteen volumes, so many chronicles of the past. Upon the backs, in gilt indices, we read: Vol. I, 1842; Vol. II, 1843; Vol. III, 1844;.... Vol. XIX, 1860—the first ten of octavo size, like boys in uniform, followed by nine portly quartos.

A thousand reminiscences are called up in glancing over these year records: the origin of the *Agriculturist*; its early struggles; its first subscriber; the labors and anxieties of its founder, still in active life, but with locks whitening with care and age; the large circle of thinking men who have in these long years contributed to its pages; the wider circle of those to whose homes it has been a visitor for a part or the whole of its existence, and the transformations in and around those homes, that have grown out of its hints and suggestions. Again we think of the printers, who have year after year labored to straighten into shape the thousand upon thousand pages of hieroglyphic manuscript, and whose nimble fingers must have moved to and fro at least three hundred million times in arranging the speaking types; of the uncounted millions of printed sheets that have dropped from the press, and after folding, stitching, and wrapping, have been deposited in the "old Dutch Church Post Office," and thence been sent hither and thither over the broad continent. Now we are carried back to the little basement office on Broadway, where the paper first saw the light of day; thence to the second story home at 189 Water-street, where it remained so many years; and finally we take a satisfactory survey of the present spacious and beautiful office where the *Agriculturist* has secured a lease against all intruders for a decade of years at least.

Passing over the associations connected with the paper itself, and its successive development,

we are tempted to take a rapid review of our personal history; and we would here pay a passing tribute to the little Genesee Farmer of the olden time, for it was perhaps the awakened thought instigated by early reading that paper, that led us to inquire whether Science could not aid in the culture of the soil, as well as in other pursuits. Before the days of the *Agriculturist*, while in the vigor of opening manhood, with a somewhat mature experience in the varied labors of farm life, we had decided to seek in an eastern college, not only what of discipline the mind could gain from a study of Greek and Latin roots, but what of assistance practical science could render to the cultivator in ascertaining and overcoming the deficiencies of the soil. We recall the years of anxious study, the interest with which we read the beautiful theories of Liebig and others, who seemed to have discovered, now in one direction, and then in another, the true relations of plants to the soil and the atmosphere, and the means of harmonizing those relations, and supplying at small labor and cost the connecting ties which should make them take kindly to each other. We well remember, when we subsequently entered the weird chambers of old Yale's chemical laboratory, and toiled on month after month, and even year after year, amid bottles of acids and alkalies, and a hundred other re-agents, surrounded with crucibles, and retorts, and filters, and balances, and in an atmosphere suggestive of the nether regions—now examining the very vitals of a grain or stem of wheat, of oats, of corn; then separating the silice, the lime, the potash, the soda, the magnesia, the iron, the phosphoric acid, and other known and unknown elements of various soils, gathered from New-England, sent in from the Middle States, and furnished by Hammond, of South Carolina, by Phillips, of Mississippi, and others; anon weighing a half dozen or more beautiful compounds, gathered by chemical manipulations from a mass of reeking manure from the barn-yard, or from the rotten carcasses of birds and fishes brought from the Islands of Peru and Ichaboe; followed by anxious inquiry how these various elements of plants, soils, and manures, stand related to each other. Nor can we forget the disappointment we have since felt, as we have gradually been forced to the conclusion, that, though Nature has allowed chemistry to invade her domain and gather a few hints, yes many of them, useful to the practical cultivator of the soil, yet she still maintains an almost Japanese tenacity in resisting the enterprising inquirers after the laws by which she rules her empire. Though somewhat disappointed in not learning as much from chemistry as we had fondly anticipated, our time spent in that direction is of inestimable value; in that it has, at least, taught us that there are many things that we do not know; that much of the so-called agricultural science is yet

unreliable; and that the teachings of some of the self-constituted doctors and professors of agriculture are but the visionary dreamings of impracticable theorists—if nothing worse.

.... Again we call to mind the timidity with which, after repeated solicitations from the founder of this journal, we entered its sanctum as associate editor, and ere long found its responsible duties resting mainly on our shoulders; and subsequently, almost without our seeking, the triple cares of editor, publisher, and proprietor, were altogether upon us. Well, for years past, aided by a noble and faithful corps of associates, we have tried to discharge these duties, and have sought to further our own interests, by honestly striving to promote the interests of our readers. How well we have succeeded, we of course leave others to judge. A circle of readers and patrons larger, by far, than at any former period, is an indication, at least, that we have not mistaken our calling, and is a strong incentive to renewed exertions, as we now begin the labors of the twentieth volume. The bond between our readers and ourselves is pleasant, higher we trust than a mere commercial one—so much paper and ink for so much money. We are laborers together to promote each other's elevation and happiness.

Let us work while the day lasts. Of those whose names stand on the first books of this office, how few remain on this stage of action. The word "deceased" has been written against many a name during these nineteen years, and doubtless is written for many others by the recording Angel. We are all hastening onward through this life's pilgrimage. Our plowing and sowing, our harvesting, and consuming, and marketing the products of our fields, will speedily be over. The year we now enter upon will, to many of our number, be the last. Let us put our houses in order at the very commencement of the year; let us sow any good seed yet to be sown for the harvest of the next life, and root out any foul weeds that have been hitherto permitted to grow. If this be done, with that Omnipotent aid vouchsafed to all who will seek for it, it matters little whether prosperity, or storms, or drouths, visit our outward fields. If the soil of the heart be in order—the fallow ground all broken up and planted with good seed, and watered with the dews of grace—the new cycle we now enter upon will be what we heartily wish to all our readers—A HAPPY NEW YEAR.

The successful men in the business world are not those who merely labor hard with their hands, but those who think and plan much. Thought is developed by contact with other minds, either by speaking or reading. Farmers, who have less opportunity than others for conversation, should supply the deficiency, as far as possible, by reading the thoughts of others.

Calendar of Operations for Jan., 1861.

[We note down sundry kinds of work to be done during the month, to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 35° to 45°; but will be equally applicable to points further North and South, by making due allowance for each degree of latitude, that is, earlier for the North, and later for the South.]

☞ This department is much fuller in the working season, embracing all the operations of the farm, garden, etc.

EXPLANATIONS.—*f* indicates the first; *m*, the middle; and *l*, the last of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signify that the work may be done in either or in both periods indicated; thus, work marked *fm*, indicates that it is to be attended to from the first to the middle of the month.]

Farm.

The season is auspicious to the commencement of improved practice on the farm. If upon a survey of the past year's operation it is evident that there was too much attempted for the amount of capital invested, now is the time to concentrate effort upon a smaller area. Sell land enough to make your place manageable. Fifty acres well tilled, will bring more profit than double that number half worked. See note of Mr. Jones' experience in this paper. If scarcity of fodder is apprehended, better to reduce the number of animals than to limit their feed below their wants. True economy is rightly using what we possess; let it be the rule in all undertakings. Few special directions are needed beyond what were given last month.

Barns and Stables—Arrange the old ones, and plan the new ones, if to be built, for convenience in threshing, feeding, manure making, etc., and for the comfort of stock. Keep the barn tidy. Fowls should not be allowed to roost around where they choose. Tools, harness, etc., should be kept in appropriate rooms. Allow no manure to accumulate against the sides or sills of the building.

Breeding Animals—Give them generous fare, but not a surfeit. Keep well sheltered. Their progeny will repay all such care.

Cattle—Keep them in warm stables, with plenty of bedding. Feed regularly, and with variety of food. Roots, oil meal with hay, and an occasional allowance of unthreshed oats cut fine, if you have any or all these, will pay. Use the card or curry-comb frequently. Break steers. Handle heifers to prepare them for milking.

Cellars—Cover bins of roots or apples in danger from frost. Remove decaying vegetables. Keep out rats; cats, which are nearly as great a nuisance as rats, or poison, must be resorted to. Traps won't do—at least with us.

Corn—Shell any remaining. Select the best ears for seed, if not done at the proper season.

Debts—Collect those due as far as may be, and pay all practicable. Commence the year square with the world if possible.

Fencing—Prepare timber when the weather allows. Make gates, bar-posts, etc., in the workshop in stormy weather.

Grain—Examine occasionally to secure from dampness and vermin. That for Spring seed should be specially cared for.

Hemp and Flax—Break and prepare for market.

Hogs—Slaughter, *ff*, any remaining of the fattening stock; they can gain little in very cold weather. Allow plenty of bedding, (See page 14,) and keep the pens clean. Give cooked food moderately warm. Furr in the male, *ff*, if not already done.

Horses—Keep in warm stables, and blanket them in very cold weather. (See page 14.) Cover them when standing out after a drive. Give an occasional allowance of carrots, if you have them, with hay and grain. Are they well shod and sharpened? On cold days warm their bits before harnessing; it is cruel to skin their mouths with cold iron. Do not give them ice-water to drink. Keep well cleaned, especially their feet and legs. Handle and break colts.

Ice-Houses—Fill as soon as practicable. The first really good ice may be the last.

Implements—Put all in thorough repair. Keep from unnecessary exposure to storms. Oil running gear of threshers, fanning mills, etc.

Lumber—Improve the snow in drawing logs to mill. Cut them in the forest, if it was not done in the Fall, which would have been preferable.

Manure—Prosperous farming commences in securing an abundant supply. Arrange troughs and reservoirs to collect liquids from the stables, and absorb them with muck or straw. Use all sink slops, poultry droppings, chip dirt, dead animals, and other decaying matter, in the compost heap. These combined with stable manure and muck, will in many cases double the amount heretofore made.

Marketing—Improve good sleighing for marketing grain, if prices are satisfactory. Make cash sales if practicable.

Poultry—Give cooked food, and raw meat chopped fine, with cabbages or other vegetables. Keep them in warm quarters, with plenty of light. Supply water, gravel, lime, and ashes, or chip dust.

Roads—Remove obstructing drifts, and keep water courses and bridges in order.

Salt animals at least weekly. (See page 16.)

Sheep—Shelter from storms. Feed from racks separate from other stock. Give sliced roots, and occasionally a treat of grain, with hay. Turn the buck with the ewes, *ff*.

Wood—Prepare a year's stock in advance. A circular saw attached to the horse-power, will save much labor.

Orchard and Nursery.

Leisure evenings may be improved in studying works on tree and fruit culture, planning new grounds, and selecting an assortment for Spring planting. A large variety is not desirable for the orchard. Choose enough of known approved kinds to afford a supply throughout the season. Send orders early to reliable nurserymen, rather than wait for the visit of tree peddlers.

Secure a full supply of cions for grafting trees bearing inferior fruit; they may be cut at any time when free from frost, and sent by mail if wrapped in oiled silk to retain their moisture. Keep until Spring by burying in sand in the cellar.

Keep all standing water from the grounds by surface drains now, and by thorough underdraining as soon as the season will allow.

Where trees are prostrated by winds, remove them at once to the wood pile. If branches are split down, pare the wound smooth, and coat with grafting wax. Leave pruning until next Summer.

Destroy the eggs of caterpillars and other insects, which can now be readily seen upon the leafless branches. Repel rabbits and mice with tarred paper tied about the trunks of the trees.

Have a full supply of implements, stakes, labels, etc., ready for Spring.

Kitchen and Fruit Garden.

At the North, little can be done now in this department, except in preparation for future work. In intervals of open weather, draining and trenching can be done in some sections, and all may lay out plans of the grounds, and secure a good selection of seeds. Draw on paper a plan of the garden, and designate the exact locality of each kind of vegetable and fruit.

Cold Frames—Plants in them are benefited by ventilation when the weather permits. Give extra covering in very severe cold. Snow falling upon them need not be removed; it serves as a protection.

Cuttings of Gooseberries, Currants, etc., can be made at any time when not frozen. Preserve them in dry sand.

Frames and Sashes for Hot-beds should be in readiness for early use. Except at the South, February is early enough to make the beds.

Mushrooms—Prepare boxes and keep from frost, and moderately moist, in the green-house or cellar.

Rhubarb—An early growth can be forced by covering the crown with an open barrel, half filled with coarse stable manure.

Seeds—Before purchasing a quantity, sow a few upon cotton floating in water, to try their vitality; if good, they will soon germinate in a warm room.

Stakes, Poles, Pea-brush, etc.—Collect and prepare a good supply of these while securing fuel.

Flower Garden and Lawn.

Trees and plants in the open ground are now at rest, and require very little care. In Northern latitudes, evergreens should be cleared from the accumulations of snow upon their branches. Low branching deciduous trees are sometimes injured in this way, especially where the settling drifts pull down the lower limbs. A little shovelling will clear them, and prevent damage. Junipers and other upright growing evergreens are protected by passing twine spirally around their heads, which keeps the straggling branches from being split down by snow, and gives a more compact appearance.

Plans may now be perfected for the operations of the Spring. Labels and stakes should be prepared in-doors, that they may be in readiness for the busy season of planting.

The frames and flower pits will require some attention. During mild clear days, when the mercury is above the freezing point, open them for ventilation, and remove any decaying leaves, watering the plants lightly if the soil be quite dry. If the pits are covered with snow and the weather is cold, leave the snow for an additional protection, and keep everything closed.

In mild, southern latitudes, where the ground is open, trees and shrubs may be planted, grounds laid out, dug, trenched, and manured, and everything attended to which will facilitate the regular planting in February and March. As warmer weather invites more into the pleasure garden and among shrubbery, the grounds should be kept neat and clean, paths in order, lawns raked, and everything done to render them attractive.

Green-Houses.

As these only contain those plants which require protection from actual frost, the rooms need but little fire heat excepting in very cold weather. Plants to be grown or flowered during the Winter, should be put in the hot or forcing-house, where more heat is kept up. In the green-house proper, a temperature of 35° to 50° is all that is required, but when the outside atmosphere is very cold, fire will be required to keep out frost. During mild clear days, the ventilators may be opened to air the rooms thoroughly.

Grape Vines should be pruned and arranged for growing, especially if the roots are inside the house. The buds will soon give indications of swelling.

Plants in pots and boxes should be frequently examined; water only when the soil is getting quite dry, but remove all decayed leaves, so that a pure, sweet atmosphere be always maintained. Bulbs kept here in pots, to be forced as needed, will require very little water. They will grow slowly, and can be moved to warmer apartments when wanted.

Insects should be looked after, and the trunks of oranges, lemons, oleanders, etc., washed with potash water, if infected with scale. Washing the foliage of broad-leaved plants with tepid water will destroy insects, and promote a healthy growth.

Pots standing near the windows will need turning occasionally, or the plants will incline towards the light, and acquire a leaning position.

Hot-House and Conservatory.

The greatest care will now be required to guard against extremes of temperature. The weather is changeable out of doors, and only a watchful eye to the furnace and thermometer will prevent changes in-doors. There is an opposite danger to be avoided. The furnace is sometimes filled with coal, upon retiring for the night, and the room is highly heated when a lower temperature should be maintained. In a state of nature, plants receive the greatest amount of heat by sunlight, and less at night. As far as may be, this rule should be observed in the houses. A desirable temperature is 70° to 80° for

most collections—90° for those tropical plants which need strong forcing. The heat should be as even as possible, only falling a few degrees at night.

Air is necessary to vegetable life, and as the fire and growing plants are constantly vitiating it, fresh supplies are needed. Admit through the upper ventilators to avoid draft. The houses should be kept closed in very severe weather, during fogs, storms, and high winds. Previous to snow storms, or during the prevalence of extreme cold weather, it is better to keep the outer shutters on, as it will scarcely be possible to keep the cold out with a single covering of glass. Remove the snow as soon as the storm is over, as its melting causes a drip from the glass upon the plants.

Azalias—Syringe and water more freely as they increase in growth and begin to swell for bloom. Fumigate to destroy insects.

Bulbs—Bring from the green-house as wanted for succession of bloom. Change the water of those in glasses at least weekly.

Camellias are now coming into flower. Water and syringe freely, avoiding wetting the bloom. Cut back to a compact bush form. Cuttings may still be made and inserted into pots at once.

Carnations—Stake those in bloom, and water often. Shift those which are pot-bound. Put in cuttings for a Summer stock to bloom in the open grounds.

Cinerarias will need especial watching as they are favorites of the green fly. Tobacco fumes are the best antidote. Repotting will be necessary in many instances.

Cuttings and Layers of many plants may now be made. Insert thickly in pots of prepared soil until well rooted, when they may be put in separate pots. Provide, in this way, for a good stock of bedding plants for Spring use out of doors.

Fruit Trees in Pots—Much attention is now given to "Orchard Houses," or the culture of fruit trees in pots, under glass. It is found that grape vines, peach trees, nectarines, apricots, figs, and even apples and pears, may be grown and fruited in 10 and 12 inch pots, forming novel objects of much interest, if not a profitable feature. In England, where some of these fruits can scarcely be ripened out of doors at all, large houses are built expressly for them, but in our climate it is only advisable for the amateur or man of means. Such trees should now be pruned, if they have not already received that care, and arranged for immediate forcing. Of course the heads should be cut back to correspond with the limited space for roots.

Grapes, in the early houses are beginning to color, or even ripening off. They require a dryer atmosphere with very little water at the root. Air freely. Later houses require more care. Some need pruning, thinning, syringing, and an application of sulphur to destroy the mildew, according to the amount of forcing they have received, while others are but just arranged upon the rafters, with buds barely beginning to swell. Keep outside borders well covered with manure.

Insects—Prevention is better than cure. A moist atmosphere, frequent washing and syringing of the foliage, hand picking, etc., are the best preventives. For a cure, use tobacco fumes for thrips and green-fly, soap and water for scale, and a sponge or syringe and clear water for red spider.

Bedding Plants—Now is the time to get up a good stock of verbenas, petunias, pelargoniums, fuchsias, salvias, heliotropes, dicentras, and other good massing plants for the open borders in Spring. They can be increased rapidly from cuttings and layers, and will be of good size at planting time.

Potting—Many plants need an early shift to pots of a larger size, and cuttings inserted last month are now ready to pot off. Have a heap of potting soil at all times in readiness where it will not freeze.

Seeds of many out-door annuals may now be sown for early planting in the borders as soon as made up in the Spring.

Shutters—Have in readiness and use during snow storms and when very cold and windy. It is not

best to leave them off at night unless the weather is quite mild. Put them on early at night, and remove in the morning when the sun is well up.

Water—Examine the pots and give water when the soil becomes partially dry. Syringe frequently, but avoid excess. More water will always be needed as rapidity of growth increases. The water should always be soft, and taken from a tank or cistern in the house itself—to be of same warmth.

Apiary in January.

BY M. QUINBY.

Stocks of bees that contain a limited supply of honey, and are standing in the open air, will be more liable to suffer, than such as have stores in proper quantity. The bees must have access to their stores as often as every few days. If they have but little honey, it is quite sure to be further from where they have clustered, than when they are well supplied. Frosty combs will prevent their reaching it. If moderate weather does not occur with sufficient frequency—at intervals of two or three weeks—to melt the frost, they should be warmed artificially. Bring the hive to a warm room for a few hours; the bees will then go to their sealed honey, and remove into the cluster a supply for several days. Unless the room is perfectly dark, they should be brought in at evening. It is seldom that we have severe weather sufficiently protracted, to make this trouble necessary for strong, heavy stocks, but if such weather should occur, and prevent the warmth of a large colony from thawing out the frost of the hive during the month, it would be necessary to warm them also. In handling the hives, avoid any heavy jarring, and any unnecessary disturbance.

Keep the air passages free from dead bees, ice, etc. If the weather should be very mild, and the sun shine warm, they may be allowed to fly—unless there is a light snow on the ground, when they should be kept in by shading the hive with a board. If all the frost at any time leaves the hive, so that it may be raised without disturbing the bees, the filth, dead bees, etc., should then be swept out. . . . See if the mice have not found, or made a passage into the hive, and are appropriating to themselves forbidden sweets. They will, sometimes, if unmolested, build a nest inside, and take up their abode there for the winter. They must be turned out, and kept out, covering all passages with wire cloth, except a space just large enough for a bee to pass.

Our Exhibition Tables.

The following articles, not before noticed, have been received and placed on exhibition:

FLOWERS AND PLANTS.—Carnations and Chrysanthemums—A fine collection of many varieties from the N. Y. Orphan Asylum, C. S. Pell, Supt. . . . Jerusalem Cross—or Mole Tree (*Euphorbia lathyris*), a very pretty evergreen plant, said to be a protection from moles when planted in the garden, J. W. Douglas, N. Y. . . . Boll of ripened Cotton, J. W. Harris.

FRUIT.—Newtown Pippin Apples, W. S. Carpenter, N. Y.; Easter Beurre, Vicar of Winkfield, and Doyenne gris d'Hiver, Pears, Thos. W. Field, Kings Co., N. Y. . . . Isabella grapes, preserved in cotton, Haight & Merritt, Dutchess Co., N. Y. . . . Cranberries, bell variety, plants in bearing, F. Trowbridge, New-Haven Co., Conn.

VEGETABLES.—Carrots, Parsneps, Onions, etc., fine specimens, J. E. Macomber, Newport Co., R.I. . . . Carrots, splendid growth, W. J. Spence, Suffolk Co., N. Y. . . . Beets and Turnips, good, R. Graff, Queens Co., and W. J. Spence, Suffolk Co., N. Y. . . . Strap-leaved Turnip, weight 11½ lbs! raised from seed distributed from this office, Samuel Bowden, Fairfield Co., Conn. . . . Perfected Tomato, good specimens, S. Daniel, Westchester Co., N. Y.

BIRDS.—A magnificent Bald Eagle, captured in St. Lawrence Co., N. Y., and a full grown Horned Owl, taken in Catskill, N. Y., purchased by the publisher, for permanent exhibition, have attracted much attention. They are fine specimens. We hope to keep them alive for a long time.

Descriptive Notes upon our Seeds Distribution for 1861.

General Remarks.—The list of seeds and rules of distribution are given on page 5. To avoid confusion, whenever we add a new kind of seed, we give it a new number, instead of one which has been used for some previous kind dropped out of the list. Thus: in the present year's list the seeds numbered from 127 to 183 have not been in any previous general list. The missing numbers from 1 to 126 belong to seeds not in our present list. Separate stereotype plates are prepared for printing the seed bags of each variety distributed, and the same number is always used for the same kind of seed. In the list the numbers are arranged irregularly, for the purpose of classifying the various kinds of seeds together appropriately.

While the present year's list embraces 57 new varieties, we also retain 20 varieties before offered, for the benefit of those who have not yet been able to obtain them. Some of them are quite common in the Eastern Territories, but will be found particularly desirable in the far West, and especially on the Pacific Coast, at points remote from access to any good reliable seeds. As remarked last month, owing to the bad season in Europe as well as here, seeds are scarce and high this year—some of them extraordinarily so, and it is with the greatest difficulty and at large expense that we are able to get a supply. We hope to have enough to meet all demands from subscribers, and that our efforts in this line will prove satisfactory. The distribution can hardly begin before Feb. 1st, this year.

Our packages are necessarily small; in some cases they are put up with reference to the little weight that can go under postage stamps, and in others, because of the great cost of choice seeds. Very many of our flower seeds, for example, cost us four, five, and six, and from that to thirty five dollars the pound, even when bought at the lowest wholesale prices in Europe, and imported by us duty free. For example, we paid \$100 for only three pounds of Aster seed! Most of these seeds are annuals, and the product of the first year will furnish an abundant yield of seed for the future. Generally, the small packages of flower seeds will supply all the plants required in an ordinary flower bed or garden, if sown and cultivated with moderate care.

The following notes are designed not only to describe the seeds, but also to, in part, indicate the mode of culture. This list should be preserved. Other fuller articles on various plants will appear from time to time, and also hints as to the time of planting, etc., in the monthly Calendar of Operations.

Field Seeds.

No. 2. IMPROVED KING PHILIP CORN.—A dark brown, heavy corn, 8 rowed, with a small cob. It matures in 90 to 100 days and is a good variety for late planting, or replanting, or for a general crop. May be planted 3 to 3½ feet apart. Especially adapted to northern culture, and short seasons.

No. 3. STOWELL'S SWEET CORN.—This is a large and rather late variety, sometimes called "Evergreen" from the long time it continues in a soft state. We consider it the best late sort, and when planted at different periods yields boiling ears until frost. We plant it largely every year. Much of that sold in this country is hybridized and impure, and gives no good idea of the pure.

No. 94. CRYSTAL FLINT, or HOMINY CORN.—A tall, slow growing variety, with large ears, sometimes 3 or 4 on a stalk; kernel a beautiful clear, white flint, yielding fine white meal, and excellent "hominy." We have been pleased with two years' trial of it on a moderate scale.

No. 141. DARLING'S EXTRA EARLY CORN.—Formerly in our list, but dropped last year. It did so well with us last season that we gladly restore it. It is the best very early sweet corn we have found, rather dwarfish, and small ear, but sweet, and soon ready for the table. Plant as soon as ground is ready, and afterwards for a success sown, in drills 2½ to 3 feet apart, or in hills. We have planted it in drills 4 feet apart, with late potatoes between and obtained a good crop of both.

No. 142. YELLOW STONE TURNIP.—A heavy, nearly round, yellow sort, of the flat or Dutch species, though of beautiful cone form. It grows quickly and may be planted late.

No. 143. WAITE'S ECLIPSE TURNIP.—An improvement

upon the ordinary swede, which it resembles in size and shape. They are better grown in cool weather, hence do best when sown late, say first to middle of July, for Autumn maturing.

No. 98. LONG RED MANGEL WURZEL.—A good beet for stock, but unfit for cooking. They grow of large size and are a profitable crop for Winter feeding. Require more room than the ordinary blood beet, and cultivated the same.

No. 101. IMPROVED LONG ORANGE CARROT.—A fine, long, yellow carrot suitable for the table or for stock. It is an improvement on the common long Orange variety.

No. 140. IMPORTED GIANT WINTER.—An Irish variety, of which great stories are told in the English papers. We deem it worth a trial here, and have ordered a few bushels, at a large price—the first that will come to this country, we believe. It is a Winter variety, and, of course, can not be sown until Autumn. An engraving and description of it will appear by and by.

Vegetable and Garden Seeds.

No. 8. DANIEL O'ROURKE PEA.—Partly dwarf (2 feet high); berry of moderate size and medium quality; but a very desirable pea on account of its early maturity; is ready for the table in 40 to 45 days from planting.

No. 9. CHAMPION OF ENGLAND PEA.—One of the best proved sorts; and we adopt it for the general garden crop, sowing it at intervals for a succession. Sown at the same time as No. 8, the latter is gone before this comes on. Sow early and at frequent intervals for a succession during the season.

No. 58. NAPOLEON PEA.—A very good new pea, earlier than No. 9; of medium height; worthy of general adoption, or at least of further trial.

No. 130. GREAT EASTERN PEA.—A new pea, very large berry, blue, wrinkled, of good quality; stalk tall, requiring high bushing.

No. 12. GREEN KOHL RABI.—A sort of turnip cabbage, or turnip growing above ground, which is cooked like a turnip, and to our taste better than either turnips or cabbages if used before maturity. It grows nearly round with about a dozen long stem leaves resembling cabbage leaves stuck into its surface at various points, which makes it rather ornamental in a garden. When mature, it becomes hard like a cabbage stalk, and is then only fit for feeding to stock, for which purpose it is sometimes extensively grown. Cultivate in all respects like cabbage.

No. 13. ENFIELD MARKET CABBAGE.—A very fine quick growing, round or nearly sugar loaf variety, which has given good satisfaction to those who have received it during the two years we have been distributing seed. For a nice, early, sweet cabbage, we like it better than any other variety we have tried. It is of medium size.

No. 145. FLAT DUTCH CABBAGE.—Of the drumhead species, large and suited for Winter use. Our seed of this and No. 146, are improved kinds procured specially for our distribution, and will, we think, give excellent satisfaction.

No. 146. EARLY BATTERSEA CABBAGE.—One of the earliest sorts of the sugar-loaf variety.

No. 147. NEAPOLITAN CABBAGE LETTUCE.—A large growing solid head lettuce. This is a new variety highly commended in England, and we have consequently ordered some of the seed for general culture here.

No. 148. LONG DARK BLOOD BEET.—The best late or Winter beet. This and No. 149, are from recently improved sorts.

No. 149. EXTRA EARLY BASSANO BEET.—This is thought to be the best early beet grown; turnip shape; may be sown as early in Spring as the ground will admit.

No. 74. SOLID WHITE CELERY.—The variety which succeeds best, and is raised for market in this vicinity. For early use sow in hot-bed, but as ordinarily grown for Winter use, May sowing will be sufficiently early.

No. 150. EARLY PARIS CAULIFLOWER.—A fine variety of this cabbage family, with a large solid flower. Sow in hot-bed for early, and in open ground for late plants. This variety has been little grown here, but is so highly commended abroad that we have sent for a lot of the seed, with the expectation that it will prove an excellent acquisition.

No. 151. YELLOW DANVERS ONION.—A large, flat, smooth onion of good quality, much prized in Massachusetts, for market. Sow in early Spring.

No. 95. HUBBARD SQUASH.—Illustrated on page 73, Vol. 18. A first rate Fall, Winter and Spring squash—of medium or rather small size, hard shell, yellow, dry and sweet flesh. An excellent keeping variety. In shape they resemble the Boston Marrow, but the thick shell is of a dark green color. After two years' trial, with at least 30 other varieties, we have found none of better flesh than this, though some others are more productive.

No. 152. CHEESE PUMPKIN.—A large, flat, light yellow or cream colored pumpkin which is probably not excelled

by any of the new candidates, for ordinary culture. It continues to be our favorite. Succeeds best in an open space, but may be grown among corn or potatoes.

No. 153. LARGE RED TOMATO.—A smooth, large, firm sort, sometimes called the "Perfected." They ripen for a long time in succession and keep well. For earliest, sow in a hot-bed; and for later plants sow in the open ground, as soon as it can be worked in Spring.

No. 154. ICE CREAM WATER MELON.—A sweet, well flavored variety which has given good satisfaction where tried. Plant in open ground, same as other varieties.

No. 76. SKILLMAN'S NETTED MUSKMELON.—A round, rough skin, solid variety, green when ripe, and very delicious. Considered the best market sort.

No. 103. SAGE.—A perennial herb so common as to need no description. Seed is offered for those at a distance from seed stores, especially in new settlements. Sow in early Spring in drills, and thin out as needed.

No. 155. LONG CAYENNE PEPPER.—Offered to those fond of this seasoning, for same reason as No. 103. Sow in open ground, in early Spring. The seed pods are used in stews, etc.

No. 156. SUMMER SAVORY.—An aromatic herb usually used in cookery, offered for same reason as No. 103. Sow early in Spring, and cut and dry when in bloom.

No. 157. LONG PRICKLY CUCUMBER.—One of the best varieties for early and constant bearing. Plant in April or May according to latitude, and protect from ous.

No. 17. RED STRAP-LEAF TURNIP.—A very quick growing, large, flat turnip of the Dutch species, with a reddish or purple top—not leaves—valuable for early table use and for stock when sown late, often on land which has yielded a previous crop. Can be raised with very little trouble. Sow at any time from April to August.

No. 7. LONG WHITE FRENCH TURNIP.—Of the rutabaga species, firm and solid, but white instead of yellow, and very sweet. It attains a good size and keeps remarkably well. Sow in April or May, for early table use, but mainly in June and July for Winter use on the table, and for feeding.

No. 107. GIANT ASPARAGUS.—By improved and long continued culture this has attained large size, and superior flavor. Sow in early Spring, thickly in drills, and transplant at one or two years old.

Flower, Fruit and Ornamental Seeds.

No. 89. COTTON PLANT.—(*Gossypium herbaceum, arborescens, etc.*)—The Upland and Sea Island, are both sent in the same package (the Sea Island clean, and the Upland with down). Offered simply as an ornamental plant for the flower border, in the Middle and Northern States. The bloom is quite pretty and worth growing to look at, but the seed will not ripen or the down mature in this latitude. Sow at corn planting time, on warm soil, and thin to one foot apart, in rows two feet distant.

No. 111. CASTOR OIL PLANT.—(*Ricinus communis.*)—Generally called a bean, but belonging to another family. It is a stately plant of 4 to 8 feet in height—according to soil and location—with handsome foliage rather than flower. The leaves are very large and beautiful. Plant in Early Spring and leave 2½ to 3 feet apart. Annual.

Nos. 160, 161, 162, and 163. RASPBERRY, CURRANT, GOOSEBERRY and STRAWBERRY SEED.—We send out as good seed as can be obtained, but can not promise that all will grow. Such seeds vegetate best when planted or put in boxes of earth as soon as cleaned from the fruit. Our seed being necessarily dry will only vegetate in part. We recommend getting roots where they can be obtained, and only offer seed for those residing a long way from nurseries, and for experiment. Of course there is no telling what varieties will be produced, but some good sorts are likely to come from the seed we send, which is from the best sorts. Sow in early Spring, covering lightly with muck, or leaf mold, or very fine soil.

No. 23. MIGNONETTE.—(*Reseda odorata.*)—Not conspicuous in flower, but quite fragrant; hence desirable for bouquets. An annual of most easy culture, and continues in bloom during the season. Sow as soon as the ground can be worked in Spring, and at any time after until the middle of June. A semi-trailing plant.

No. 25. MIXED NASTURTIUMS.—(*Tropaeolum majus, etc.*)—Some will grow in a bush form, others run upon the ground several feet. Pretty in flower, and the green seed capsules are much prized for pickles, thus combining beauty and utility. Sow in early Spring, and at any time through May. Thin to one foot apart in rows two feet distant. Annuals.

No. 27. EXTRA COCKSCOMB.—(*Celosia cristata.*)—Seed of this annual given out by us has given very good satisfaction generally, and very fine combs or corymbs have been sent to our office raised from previous distributions.

Sow at any time after frost is out, and thin to 18 inches apart. Grow from 18 inches to 3 feet high. An annual.

No. 29. DOUBLE BALSAMS.—(*Impatiens balsamina.*)—Very pretty annuals of 1½ to 2 feet high, the double sorts producing few seeds, hence difficult to obtain, besides having a tendency to return to a single state. Sometimes, owing to soil or climate, a large lot of seed from double flowers, will produce nearly all single flowers. Most of those raised last season were quite pretty, however. Sow at any time after the ground is open, until the middle of June. Thin to one foot apart.

No. 30. TASSEL FLOWER.—(*Cucalia coccinea.*)—An annual of 1 to 2 feet high, sometimes called "Venus Paint Brush." From its profuseness of flowering during the entire season and its intrinsic beauty, we value it highly. It is really a perfect tassel with a scarlet fringe. Sow in May and thin to 8 to 10 inches apart.

No. 31. CHINESE PINK.—(*Dianthus Chinensis.*)—A very pretty little annual of this fine class of plants, most of which are perennials. It is not fragrant like the Sweet William, nor does it grow in clusters. Color varies from crimson with pink edgings, to white with a red center. They flower for many weeks in succession, and are desirable in every flower plot. Sow in early Spring. The roots frequently survive the Winter and bloom a second season, thus assuming a biennial habit.

No. 32. PORTULACCA, mixed varieties.—(*Portulacca splendens, lutea, etc.*)—Showy plants, brilliant red, scarlet, yellow, crimson, white, etc., of low, semi-trailing habit. They are very hardy annuals and may be sown at any time after the frost is out in Spring. Drooped seeds, ripened the previous season, often come up the next year. Continues in flower a long time.

No. 33. CYPRESS VINE.—(*Quamoclit vulgaris.*)—One of the finest annual climbers, with delicate feathery foliage and bright trumpet shaped flowers. It will climb a stupa or other support 12 to 18 feet in a season, and is a fine plant to train in a cone shape around a central stake. Soak the seed for 12 hours before sowing and only put it in when the ground is warm. Sow May 1st to June 1st, according to the locality.

No. 42. FOXGLOVE.—(*Digitalis alba, purpurea, etc.*)—A perennial, blooming the second year from seed. The glove or nearly bell-shaped flowers are very pretty, often beautifully mottled with purple and brown spots. They grow 2 to 4 feet high and flower upon a spike beginning at the bottom, and continue in bloom for several weeks. The *digitalis* of the druggist is obtained from the leaves and seeds of this plant. Sow in early Spring. The roots often die out after flowering a few years.

No. 49. CANDYTUFT.—(*Iberis umbellata, anara, etc.*)—Suitable for massing or for borders. An annual with clusters or umbels of small flowers of various colors, from pure white to purple. Grows 6 to 12 inches high and blooms most of the season. Sow at any time in Spring.

No. 51. DRUMMOND'S PHLOX.—(*Phlox Drummondii.*)—A pretty annual, which may be sown as soon as the weather is settled warm in the Spring. Blooms for 2 or 3 months, and grows 12 to 18 inches high. A fine massing plant, with flowers of various colors.

No. 86. MIXED EUPHORBIA.—(*Euphorbia variegata.*)—This plant is more prized for its foliage than for its flowers. The leaves are singularly beautiful, being variegated, with a deep white border around the edges contrasting finely with the green center. It grows 2 to 4 feet high. No new plant in our opinion is more admired. Sow early in Spring, and thin out to fully one foot apart, except when grown in masses.

No. 87. GOLDEN COREOPSIS.—(*Coreopsis tinctoria, atropurpurea, etc.*)—A showy flower of bright yellow color, with a dark center. Two to three feet high, branching, with delicate foliage. Sow at any time after frost is out until June 15th. It is an annual, often coming up from seed ripened the previous season. Leave in 2 feet rows and 6 to 10 inches apart in the row.

No. 122. CANTERBURY BELL.—(*Campanula medium.*)—Showy, pretty biennials, flowering the second year from seed, and sometimes living 3 or 4 years. They bloom along a spike 2 to 3 feet high; flowers of perfect bell shape, large, and in some varieties double; white, lilac, blue and intermediate shades. Sow at any time in May or June, and transplant in the Fall to 1 foot apart in rows 2 feet distant.

No. 123. GLIA NIVALIS.—An annual of 1 foot in height, delicate growth; white or variegated, flowers growing in panicles, and finely divided leaves. Good for massing. Sow in early Spring.

No. 124. WHITLAVIA.—(*Grandiflora.*)—This new California annual pleases us much, blooming 5 to 6 weeks from sowing, and continuing in flower until October. Its blue, bell shaped flowers resemble the *campanulas*. Sow early in May, and thin to 6 inches apart, as it only attains a height of 1 foot.

No. 126. CENTRANTHUS.—(*Macrosiphon.*)—An annual of

rather delicate appearance, but hardy and desirable. Flowers fasciated (in bundles or clusters), tubular, borne on stalks 10 to 12 inches high. Continues in bloom until frost. Sow in early Spring and thin to 6 inches.

No. 164. SWEET SCENTED AGERATUM.—(*Ageratum Mexicanum*).—A pale blue or white annual, desirable for bedding or massing. The plants may be taken up in Autumn and put in the conservatory or hot-house where they will continue in bloom during Winter. Sow in early Spring.

No. 165. COBSEA SCANDENS.—Coming from Mexico, this rampant perennial climber is not sufficiently hardy to endure our climate without the protection of a green-house, where it is more appropriately at home, and will run 200 feet in a single season. Flowers bell-shaped; large and of a purple color. Sow in the house, or in a hot-bed, in March or April, and plant out when the weather is settled. It will then flower freely during the Summer and Autumn.

No. 166. LOBELIA GRACILIS.—A dwarfish perennial of 4 to 6 inches in height, with blue flowers. Of the same family as Cardinal Flower. The *gracilis* is little known in this country. Sow early in May.

No. 167. GRAND FLOWERING MALOPE.—(*Malope Grandiflora*).—A fine annual, 2 to 3 feet high, with large rosy crimson flowers, blooming from June to October. Sow in a hot-bed and plant out in May, one foot apart, in rows 2 feet distant. They will bloom later in the season when sown in the open ground in early Spring.

No. 168. SWAN RIVER DAISY.—(*Brachycome iberidifolia*).—An annual of dwarf habit, growing 6 to 8 inches high, with dark blue, pink and white flowers which open from July to September. Suitable for massing. Sow in early Spring.

No. 169. BEAUTIFUL CLARKIA.—(*Clarkia pulchella*).—A hardy Rocky Mountain annual, of decided beauty, growing 1 foot high. Flowers light purple, opening from June to September. Sow last of April or first of May. A good border flower.

No. 170. EVENING PRIMROSE.—(*Oenothera biennis, macrocarpa, etc.*)—Biennials of marked beauty, but not sufficiently known. Most of the species are low growing, with yellow flowers, some of which are 4 or 5 inches in diameter, and expand in the evening, whence the name. Sow in May, and transplant in October or November, setting 1 to 2 feet apart. Some species give a white bloom. Others assume a perennial habit.

No. 171. FORGET-ME-NOT.—(*Myosotis palustris, arvensis, etc.*)—Low growing perennials with delicate flowers of light blue color, with white or yellow eyes. Blooms in spikes or clusters, frequently the same season of planting. Sow in early Spring. Grows 6 to 9 inches high.

No. 172. HONESTY (*Lumaria biennis*).—A biennial, flowering the second season from seed. Remarkable chiefly for the transparent, oval, and thin seed covering, which remains a long time upon the plant, and, on account of its singularity, is much used in bouquets or collections of everlasting flowers, grasses, etc. Its flowers are large, of a purple color, and open early in the season. Sow in May.

No. 173. MIXED LARKSPURS (*Delphinium consolida*).—Annals of white, rose, pink, blue, and variegated colors, growing from 2 to 3 feet high. Some of the species are double and very pretty. Flowers in spikes, for a long time in succession. Sow at any time in May or earlier, as they are very hardy.

No. 174. MIXED PANSY (*Viola tricolor*).—"Heart's Ease," or "Lady's Delight" is an old favorite. They are perennials, but when sown quite early, often bloom the first season. Some of the newer varieties are very large and pretty, with their variegated, violet striped, yellow and pink flowers. In our latitude many of them are biennial, dwarf, and adapted for massing.

No. 175. MIXED SALPIGLOSSIS (*Salpiglossis atropurpurea, atrocoerulea, azurea, etc.*)—Originally from Chili, where they are perennials, but with us they are biennials, or even annuals when sown early in frames, and afterward planted in the open ground. They grow from 1 to 2 feet high.

No. 176. TOM THUMB NASTURTIUM (*Tropaeolum nanum*).—Similar in flower and foliage to the *Tropaeolum majus*, or large nasturtium, except in their dwarf habit, and compact bush form. Gay scarlet flowers, open from July until killed by frost. The seed capsules are used for pickling. Sow at any time in Spring, in rows 2 feet apart, and thin to 1 foot in the row. Annuals.

No. 177. QUAKING GRASS (*Briza gracilis*).—An annual of 3 feet high, the nodding panicles of which are very curious, much resembling the rattles of a rattlesnake, and when dried are handsome ornaments with other grasses or flowers. Seed may be sown in Autumn, or safer in early Spring.

No. 178. EVERLASTING PEA (*Lathyrus latifolius*).—A perennial red flowering pea, growing 6 feet high, and requiring a trellis or other support. As the roots run deep

in the ground, it is better to sow seed where it is to remain. Blooms the second season. Some varieties have white, others dark red flowers. Sow at any time in Spring. It is very pretty.

No. 179. EVERLASTING FLOWER (*Xeranthemum annuum*).—Annuals, some with purple, others with white flowers. Grows 2 feet high. The dry leaves of the calyx retain their form and color for years, like the globe amaranth. Sow in early Spring. Makes a fine border plant.

No. 180. CENTAUREA (*Americana*).—Purplish pink, or blue annuals, 2 feet high, discovered by Nuttall on the Arkansas river. Flowers large, and quite pretty. Sow in April, and thin to one foot, in two feet rows.

No. 181. JACOB'S LADDER.—(*Polemonium album, caruleum, etc.*)—Called Jacob's Ladder from the leaflets upon each side of a common stem, suggesting a ladder. Grows 1½ to 3 feet high, with white and blue flowers. The terminal flowers are quite pretty, as they nod gracefully with every breeze. Sow in early Spring. They are perennials.

No. 182. SWEET ALYSSUM.—(*Alyssum maritimum*).—An annual, nearly 1 foot in height, flowering in long racemes, from June to November, or until killed by frost. White and fragrant. Sow in early Spring and thin to 1 foot apart, unless massed, for which it is well suited.

No. 183. FRENCH AND GERMAN ASTERS.—Superb annuals, partly from varieties on exhibition at the Agricultural office as described on page 309, Vol. 19, (October No.) Some idea of their value may be gained from the fact that we paid \$100 for three pounds of seed. As seed could only be had in limited quantities at any price, our packages will necessarily be small, as we wish to make 50,000 to 75,000 packages of them. Our collection includes 138 of the finest varieties, a considerable number of which will be found in each package given out. Sow at any time in May, in rows 18 inches apart, and thin to 6 inches in the row. Flowers of nearly every shade; dwarf and giant, and ½ to 1 foot high.

Seeds for Free Distribution in 1861.

[SEE REMARKS ON PAGE 3.]

Each subscriber for the twentieth volume of the *American Agriculturist* (1861) is invited to select four or five parcels of seeds from the list given opposite—provided the following conditions be noted and complied with.

A. It is of absolute importance that the following directions be strictly carried out, even to the minutest particulars. We have 77 distinct varieties of seeds, to be distributed among 100,000 or more persons scattered all over the country, which at the best will involve immense labor, and occasional mistakes must unavoidably occur, unless each subscriber take special pains to facilitate the work.

B. The seeds can be called for at the office, (after Feb. 30,) or be sent by express, or in ready prepared envelopes furnished by the subscribers, as described (E), below.

C. Subscribers at different points can estimate whether they can receive their seeds cheapest by Mail to separate individuals, or in a package to the whole Club by Express.

D. If to go by Express, no envelopes will be needed. In that case, simply send us a written list of the names, marking against each name the kinds of seed desired, using the numbers in the Catalogue. Keep a copy of the list sent, and give particular directions on each list, how the package is to be forwarded, and to whom directed.

E. If to go by mail, the applicant will (of course) furnish prepaid envelopes, of ordinary size, which should be prepared as in the engraving here given—that is: Put the figures corresponding to the Catalogue plainly on the upper left hand of the envelope, and put all the postage stamps upon the right side of the envelope, one above the other, when two or more are needed, as shown in this pattern. Arranging the stamps thus, will prevent the seeds being crushed in the stamping process in the Post-Office. One ordinary envelope will generally hold the amount of seed-packages carried by two or three stamps. [The amount of stamps can be calculated from the Catalogue. Single 1-cent stamps on letters are of no value, unless there be ten of them, as letter postage is rated by the half ounce.]

F. Let all letters referring to seeds, be as brief as possible, and yet plain. All such communications are referred directly to the clerk superintending that department. It is especially desirable that whatever relates to seed should be on a slip of paper, separate from subscriptions and other matter. (We shall probably distribute over five hundred thousand packages, and a minute's time saved on each of these would amount to 333 working days—or nearly three years!)

G. Canada subscribers will need to substitute U. S. 10-cent stamps (or money) in all cases where 3-cent stamps are named in the catalogue. When several persons send together, it will usually be cheaper to receive seeds by Express (Postage is not necessarily prepaid here, on Canada letters.)

H. Always put the stamps upon the envelopes, and not drop them loosely into the enclosing letter.

I. It is always better to send envelopes of the ordinary size, and made after what is called the "Government pattern,"—that is, those in which the back comes fully up under the piece lapping over; these seal up more firmly. This point is not essential, however.

J. Usually, the lighter the envelop the better, that more seeds may go under the same stamps.

K. Send only the number of stamps required for postage on the seed.

L. Those forwarding unpaid envelopes, will, of course, not be disappointed if they do not return. We offer seeds free, but can not, in addition, afford to pay postage also.

M. All seeds sent by mail are put up at our country residence, and each package is there mailed direct, to avoid its being overhauled at the Distributing offices.

N. We shall take time to mail all the seeds carefully and regularly. This will occupy the entire months of January, February, and March. Those going to distant points, and where the seasons are earliest, will be mailed first.

Seeds to California, Oregon and Washington Territory.—The same regulations apply here as in the Eastern States. The postage will be only 3 cents per half ounce, as we shall send all such envelopes to be filled by a friend in California to whom all the seeds will be forwarded by express, in bulk, in sealed tin cases, thus ensuring their safer carriage over the Isthmus, and saving postage to the recipients.

LIST OF SEEDS.

[Descriptive Notes upon these seeds are given in the preceding pages. The figures denote the order in which the seeds have been added to our Free Seed Catalogue. These numbers are upon all packages, seed drawers, etc., and are used in place of the names of the seeds.]

Field Seeds.

- 140—Imported Giant Wheat, requires ½ of a 3-cent stamp for postage on each package.
- 2—Improved King Philip Corn—Single, double, or triple packages, as desired, requiring one, two, or three stamps.
- 3—Stowell's Sweet Corn.....Same packages as No. 2.
- 141—Darling's Early Sweet Corn.....Same packages as No. 2.
- 142—Yellow Stone Turnip.....½ of a 3-cent stamp.
- 143—Watte's Eclipse Turnip.....½ of a 3-cent stamp.
- 98—Long Red Mangel Wurzel.....One 3-cent stamp.
- 101—Improved Long Orange Carrot.....½ of a 3-cent stamp.

Vegetable or Garden Seeds.

- 8—Daniel O'Rourke Pea.....Packages same as No. 2.
- 9—Champion of England Pea.....do.
- 58—Napoleon Pea.....do.
- 130—Great Eastern Pea.....One 3-cent stamp.
- 13—Green Kohl Rabi.....One-third of a 3-cent stamp.
- 13—Enfield Market Cabbage.....do.
- 145—Flat Dutch (Winter) Cabbage.....do.
- 146—Early Battersea Cabbage.....do.
- 147—Neapolitan Cabbage Lettuce.....do.
- 148—Long dark Blood Beet.....do.
- 149—Extra early Bassano Beet.....do.
- 74—Solid White Celery.....do.
- 150—Early Paris Cauliflower.....do.
- 151—Yellow Danvers Onion.....do.
- 95—True Hubbard Squash.....do.
- 152—Fine large Cheese Pumpkin.....do.
- 153—Large Red Tomato.....do.
- 154—Ice-cream Water Melon.....do.
- 76—Skillman's Netted Musk Melon.....do.
- 103—Sage.....do.
- 155—Long Cayenne Pepper.....do.
- 156—Summer Savory.....do.
- 157—Long Prickly Cucumber.....do.
- 17—Red Strap-Leaf Turnip.....One half of a 3-cent stamp.
- 71—Long White French Turnip.....One 3-cent stamp.
- 107—Giant Asparagus.....do.

Flower, Fruit, and Ornamental Seeds.

- 89—Cotton Plant (2 kinds, mixed).....One 3-cent stamp.
 - 111—Castor Oil Bean (Ornamental).....½ of a 3-cent stamp.
- On an average about five of the following varieties will go under a 3-cent stamp.

- 160—Raspberry Seed.....(for Experiment.)
- 161—Currant Seed.....do.
- 162—Gooseberry Seed.....do.
- 163—Strawberry Seed.....do.
- 23—Mignonette (a.)
- 25—Mixed Nasturtium (a.)
- 27—Extra Cockscomb (a.)
- 29—Double Balsams mix'd (a.)
- 30—Tassel Flower (a.)
- 31—Chinese Pink (a.)
- 32—Portulacae, mixed (a.)
- 33—Cypress Vine (a.)
- 42—Foxglove (b.)
- 43—Candytuft (a.)
- 51—Phlox Drummondii (a.)
- 56—Euphorbia, mixed (a.)
- 57—Coreopsis (a.)
- 122—Mixed Canterbury Bells (b.)
- 123—Cilia nivalis (a.)
- 124—Wildlavina (a.)
- 126—Long-tubed Centaurea (a.)
- 164—Sweet scented Ageratum (a.)
- 165—Cobaea Scandens (p.)
- 166—Lobelia gracilis (a.)
- 167—Malope Grandiflora (a.)
- 168—Swan River Daisy (a.)
- 169—Clarkia pulchella (a.)
- 170—Evening primrose (b.)
- 171—Forget me not (p.)
- 172—Lumaria biennis (b.)
- 173—Mixed branching Larkspur (a.)
- 174—Mixed Pansy (p.)
- 175—Mixed Salpiglossis (a.)
- 176—Tom Thumb Nasturtium (a.)
- 177—Ornamental Gram (a.)
- 178—Lathyrus latifolius (a.)
- 179—Xeranthemum annuum (a.)
- 180—Centaurea Americana (a.)
- 181—Jacob's Ladder (p.)
- 182—Sweet Alyssum (a.)
- 183—Mixed French and German Asters (a.)

a, annual—b, biennial—p, perennial.

GERMINATION OF SEEDS.—It is stated by M. André Leroy, that seeds, naturally protected by a fatty or oily pulp, may be readily made to germinate by crushing the pulp in potash water, and then rubbing the seeds in fine sand. Those of Magnolias, Hollies, Yews, and the like, which will often lie in the ground for a couple of years without growing, while the outer pulp is decaying, are said to come up readily after having been thus treated.

Sorghum at the West.

The foundation of the wide-spread culture in this country of the Sorghum, or "Chinese Sugar Cane," was without doubt laid by the *American Agriculturist*. Tens of thousands of little parcels of seed were distributed free from this office, and scattered broad-cast over the country, giving all who desired, a chance to try it on a small scale without expense. As we predicted, it has not been found adapted to the far north, but it is fast becoming a staple crop in the southern tier of the northwestern States, particularly in Iowa and Illinois, and more or less in Indiana and Ohio. We must be excused if we take a little credit for having enabled the country at large to experiment so cheaply with a new plant. Generally, when any new plant comes before the country with such a flourish of trumpets as attended the first introduction of the sorghum, a few speculators secure a monopoly and reap a fortune. The publisher of the *Agriculturist* at once procured from foreign sources nearly fifteen hundred pounds of the seed, and offered it in small parcels, free to all his subscribers desiring it. It paid him, as an advertisement, but the country was none the less benefited. The same course will be adopted again with respect to other plants, should occasion call for it.* The constant advice of the *Agriculturist* was, that people should only try it on a small scale, and where this advice was followed, no one suffered loss. The seed thus disseminated was rapidly multiplied, and wherever the plant seemed to flourish, it was further experimented with. Now, while it has been discarded in a majority of localities, in many other places it is cultivated quite largely, and with promising results.

The reports from the West for the past season are encouraging. Lest, from our connection with the plant, we might be thought to be prejudiced in its favor, we will let our contemporaries speak. The *Prairie Farmer*, referring especially to Illinois, says: "The people of the West are succeeding in its culture and manufacture beyond even the highest hopes of its friends. More syrup and sugar is being made from it this year in the West than ever before—more seed will be planted next season than was planted the present. The syrup and sugar, grown and manufactured on our soil, will save our farmers a heavy tax, and are a source of wealth, which western farmers will scarcely ignore for some time to come."

An Ohio correspondent writes to the "Friends' Review," of Philadelphia, that a large amount of excellent molasses has been made from the Sorghum and Imphee in his vicinity. He says: "The quality of the syrup this year is so much superior to what it has been heretofore, that the cultivation of the cane will become very common among farmers. I know of seven mills in

* Many of our readers will be interested in the origin of our seed distribution. In the Spring of 1856 we sowed a small plot with sorghum seed obtained from France. In Autumn we described the experiment (see Vol. XV, page 305) and offered our own seed in small parcels to such of our subscribers as would provide a ready directed post-paid envelop to carry it in. Scarcely was this offer published, when a party called and offered us half a dollar an ounce, saying "the newspaper reports had made the people at the west crazy for it, and he could sell it out in small parcels at the rate of \$5 an ounce." We of course refused to part with it, having promised it to our readers. The hints thus received from the would-be speculator, led us to procure a large supply of seed, as above stated; and from this point we commenced our general annual large distribution of various seeds, which has grown to be an important department of our enterprise. Other publishers are adopting a similar course with ourselves. Almost or quite a million separate parcels of good seeds have already gone out from our office.

operation, and the least quantity from any one manufactory, is over 300 gallons. More than 700 gallons were made at one of our mills."

A correspondent of the *Farmers Advocate* (Illinois), says: "I have made 5,000 gallons of very good syrup this Fall, which readily sells for fifty cents per gallon....I have raised two good crops of cane upon sod ground, and I think it the most profitable that I can put on such land. Our light shallow soil gives 100 gallons syrup per acre, while good rich land yields 200 or more gallons."

SUGAR ESTATES OF CUBA.—From a work on the Sugar Estates of Cuba, by Charles Rebello, British Vice-Consul, it appears that there were in full operation in Cuba last season, 1365 Sugar Estates, which produced 1,127,348,750 pounds, worth \$45,093,860. On these plantations 691,917 acres are planted with cane, and 1,289,650 acres used for other purposes.

Extensive Draining

T. C. Maxwell & Brother, nurserymen of Geneva, N. Y., have, according to the *Country Gentleman*, expended \$5,000 in draining their land. Fifty miles of drain tile have been laid down, at a cost of \$100 per mile. Upon the last 30 acres drained, the expense of opening the ditches was reduced from 34c. to 30c. per rod, by using the common and subsoil plow to loosen the ground. The soil is a gravel and clay loam, with a hard clay subsoil in some places. The owners consider that the heavy expense has been fully repaid by the improved condition of the soil.

Frozen Seed Corn.

Daniel Steck, Lycoming Co., Pa., writes that the early selection of seed corn is important to prevent damage from frost before the kernels are dry. After the grain is matured, it still contains a considerable amount of moisture. If it be frozen before this moisture is evaporated, the germinating power will be injured or destroyed, although in other respects the corn may be sound. This fact, he thinks, accounts for many failures of seed supposed to be good: the difficulty could not be discovered by any appearance of the corn. Mr. S. thinks that where corn remained in the field, exposed to the severe freezing weather of last Nov. 24 and 25th, it is in most cases rendered unfit for seed. Those who failed to select and dry their corn before that time, would do well to make provision for next Spring's planting, either by saving enough of the old stock which is known to be good, or procuring a supply from reliable sources. A stitch in time saves nine.

For the *American Agriculturist*.

How to Preserve the Agriculturist.

We have just finished reading up our last number, and as it closed the year we put it by for reference, in the following simple way: Two strips of wood, a foot long, a quarter of an inch wide, and an eighth of an inch thick, were taken, and three holes bored in each; one in the middle and one an inch and a half from each end. Then the two leaves from the last number, containing the title page and contents, were placed in front of the first number; a sheet of brown paper was folded for each side of the book; the twelve numbers were neatly laid together, and a cord passed through their backs and through the strips of wood and tied, and there

was a volume for our pains. This is not equal to binding, but answers a good purpose for those who are not convenient to a book-binder.

Chester Co., Penn.

WM. KITE.

CUT POTATOES FOR SEED.—A. G. Hazeltine, gives in the *Country Gentleman*, the result of a trial of cut and whole potatoes planted side by side. The whole potatoes planted were of large size; yield less than the others, of inferior quality, and knotty appearance. The yield from the cut potatoes, with one eye to the hill, was the largest in every case, and of uniform size and fine shape.

A LAND SALE OF THE RIGHT SORT.—We see it reported that the Land Department of the Illinois Central Railroad has recently sold 3000 acres of land in Shelby County, to a company of sixty German farmers from Western New-York. If this report be true, we can testify from personal observation to the value of this accession of farmers to the Prairie State. In Southern Ohio there is a most flourishing agricultural neighborhood settled by a similar company from the same locality, some 25 years ago, as near as we can remember.

MUSTY BARRELS can be cleansed and rendered sweet by putting in them a pint of unslacked lime, adding one or two gallons of water, and shaking thoroughly. After standing three or four hours, rinse them with cold water.

WHICH WAS "SOLD."—Jones was riding up in Westchester County, N. Y., and saw a board nailed up on a post in the yard of a farm-house, with the sign painted on it, "This farm for sale." Always ready for a little pleasantry, and seeing a woman in checked sun-bonnet picking up an apronful of chips at the wood-pile in front of the house, he stopped, and asked her, very politely, when the farm was to sail? She went on with her work, but replied to his question instantly: "Just as soon as the man comes along that can raise the wind." Jones drove on.

What the Humbugs are Doing.

The publisher of a certain paper, smarting under the showing up some of his operations reviewed in a former article, sneeringly asks: "Why does the *American Agriculturist* go out of its legitimate sphere, to be prying into other people's concerns?" *Answer.*—This querist and others of his ilk, are continually imposing upon the public, seeking their money under false pretences, and it is exactly appropriate to our sphere, to put the public on their guard by general warnings, and by specific examples when needed. The *Agriculturist* circulates largely among rural people, who are not familiar with the arts of swindlers, and as we have before stated, they are, as a class, more honest themselves, and therefore less likely to be on the look-out for deception from others. Swindlers understand this, and hence nine-tenths of all their efforts at imposition are directed at rural people. We are somewhat familiar with their operations by former experience, and being so situated that we can trace out their deeds, it is peculiarly our province to do what we can to guard the public. So far, therefore, as may seem desirable, we shall follow up the subject.

Some of these swindlers are so guarded in their operations; that it is proper for us to only allude to their plans in a general way, and leave our readers to draw their own inferences. For example, within a stone's throw of our own of-

rice is an establishment (we hardly know its present name, it changes so often), which has had half a dozen branches, more or less, carried on under different names—the post office address is the same for a part, while other branches are located in different streets. We know that one man pays all the printing bills for each of these concerns, while those receiving their circulars, would naturally conclude that they are distinct parties. This enables the same man to humbug the same individual under a variety of names, and with different schemes. Under the name of one firm, he offers one or more journals, with "splendid prizes" of various kinds. Under another name he proposes to furnish books of sundry kinds with numerous "gifts" to each purchaser. Under another name magnificent engravings are offered dog cheap, with one or more gifts, and a chance at prizes of four to five hundred times the value of the small amount of money you are asked for. Valuable agencies are proposed to all who become his customers.

Under one name a catalogue of books was sent out through the mails, so plausibly worded that a multitude of persons were led to send in their money. Numerous complaints have come to us, that nothing could be heard of money so sent. We forthwith applied at the establishment for redress, and were coolly informed that there was such a man there a few weeks since, who merely rented a desk, but "he left a week or two ago for Philadelphia, and we can tell nothing of his whereabouts."

Go into this establishment on any day, and you will see a number of persons industriously at work mailing private circulars by the tens of thousands to all parts of the country. It is certain that patronage is received, or the business would not be continued.

Such parties will continue their operations in some form as long as they can find dupes. The main root of the matter lies just here; many persons believe a dollar's worth of goods can be obtained for a dime. Sharpers play upon this belief. They promise great gains for little pains—a fortune for a dollar invested in a lottery scheme, a farm for a trifle, a gold watch for a song, and so on to the end of the chapter. They skillfully arrange their plans to meet the desires and raise the expectations of their intended dupes. They will continue the game in some form, until all learn the simple truism that no man can make a living by doing a losing business. The expense of printing and distributing circulars by the hundred thousand, the risk of detection and punishment, in addition to the means of livelihood, must all be paid for. Whenever, then, a man advertises to furnish goods at rates greatly below their value, somebody must suffer—when he does it as a business, those who buy will be the losers; for the advertiser can live only by swindling. So, then, no matter how plausible a circular may look, if it promises to give more than an equivalent for your money, it conceals a cheat; burn it without further examination, or use it only to expose the swindle, and put others on their guard.

Here are a few examples of the operations now being carried on.

GIFT ENTERPRISES.

A firm in New-York, in their circular, which was received by one of our subscribers, professes to carry on a "Great Newspaper and Periodical Enterprise." They offer "to furnish any weekly or monthly journal at the regular subscription price, and to give to every subscriber of \$2 for publications, a handsome gift, worth from 75 cents to \$100." Among the list of periodicals,

for which they solicited subscriptions, we noticed the *Agriculturist*; and having never authorized them, or any other parties, to offer this journal on such terms, we proceeded at once to look up the establishment. Upon inquiry at the place to which their letters were to be directed, we were politely informed, that they had vacated the premises, leaving the landlord *minus* a month's rent. The only notice they gave of departure, was by a note slipped under their landlord's door in the night. What sort of gifts would such parties be likely to bestow? They took in all the money they could get, until parties began to inquire after it, and then shut up shop—and are doubtless now operating somewhere else under a new name, and in some new scheme.

A CHARMING HOME FOR LIFE!

Who would not bite at such a bait? Are we not all working for this very thing by day, and dreaming of it by night? But here lies a pamphlet, issued by a firm in this city, giving a chance of securing one valued at \$10,000, by the payment of only \$1; also a chance for four fine farms in the state of Iowa, "valued at" over \$5,000; also \$50,000 worth of jewelry; also Ladies' Needlework Collars; also Linen Handkerchiefs, etc.; also ten first quality double-thread sewing machines; also many other things. The pamphlet contains a full description and engraving of the "Charming Home," and almost pathetically appeals to the reader to send his dollar, and secure a chance. A long catalogue of books, engravings, magazines, etc., etc., is given, which they offer for sale with the prices annexed. They say: "We will present to each purchaser with EVERY article of one dollar or more, ONE of OUR rich and valuable gifts, and one of the land certificates."

To make this more emphatic, and prevent any misunderstanding, they say in addition: "The purchaser under our system receives: 1st. The article ordered. 2d. A gift, frequently of much greater value; and, 3d. The land certificate, giving him a chance of securing a charming home for life." Only three pages further on, they say: "We propose to sell...any Book or Engraving in the American Market...at the lowest retail price; and for any Engraving at one dollar or over, to give one of our rich gifts, or a certificate of one share in the Home and the farms, the purchaser to take his choice. Where no choice is expressed, we shall send the certificate." This appears to be not exactly "on the square." Again, supposing a purchaser to receive his "certificate of a share." What use can he make of it? Are the shareholders to draw for the "home"? or is it to be divided and served out in small parcels? On this subject the pamphlet is silent. In absence of this necessary information, we conclude the "certificates" are worth the paper they are written on, and no more. Again, there is no limitation to the number of shares to be issued; the "home" may serve as stock in trade for the concern for fifty years, for all that appears to the contrary, and if one hundred thousand dupes can be found, the proprietors will, in the course of time, make a "nice little thing out of it."

But will not the jewelry, etc., promised, pay for an investment? No. One of this very firm said in substance to a friend of ours, "we always know what article to send, and the value is in proportion to the amount of books sold. For a dollar, some cheap trinket is thrown in. If any one wants a watch, the order must be large enough to make it pay."

The whole thing amounts to just this; you

may get what you pay for; but the deceptive nature of the promises made by these parties, is not calculated to inspire unlimited confidence in their business transactions.

We have dwelt at length upon this matter, from the fact that this firm are said to have capital sufficient, and intend to extend their operations throughout the land. It will be entirely safe for our readers to "let them, and all similar concerns alone severely"—we shall not.

The Lottery Swindle Again.

Can it be necessary to say any thing more to the readers of the *American Agriculturist*, on the subject of Lotteries? We should certainly believe nothing more was needed by our older readers, yet it may be well to occasionally note a new dodge of the ticket sellers—partly for the benefit of new subscribers, and partly that the agitation of the matter, and talking it over by our readers, may, perhaps, be the means of putting on their guard those of their neighbors who are not so wise, or so fortunate as to avail themselves of the benefit of these columns. It is certain that plenty of people are still patronizing these lottery dealers, otherwise they would not continue to send their circulars broadcast over the country at so large an outlay for printing and postage. We desire to do our part towards diminishing their patronage.

Let us premise, that no man who understands the working of lotteries, can be persuaded into investing his money in them. The victims are among those who are under the impression that these concerns are honorably conducted, and that they do afford a reasonable chance of a large return for a small investment. The few cases of reported success, which are held up in such glowing colors by the interested parties, dazzle them, and they permit themselves to be led blindly into the snare. They forget that before any chance at all is given to ticket buyers, the managers first secure to themselves a large sum for profits and immense expenses. They forget that for every case of reported success there are a vast number of unsuccessful buyers. But we can not stop to discuss the subject—our present object is to notice

THE LATEST LOTTERY DODGE.—We are in receipt of a great number of *Lithograph letters*, so well executed as to appear like genuine letters of hand. These have been sent to persons in various parts of the country, in most cases marked "private" or "confidential." They purport to come from some "Old, successful, etc.," ticket selling firm. The special temptation is, that the writers of these "confidential letters" profess to desire to send a magnificent prize to the persons addressed, so as to create a sensation in their several neighborhoods, and thus build up a future business there. Their letters are so worded as to leave the impression upon the recipient of the letter, that he, and he only, is selected to be the fortunate recipient of the prize in his own region. In one case we hear that nearly one hundred persons in a single town each received the same proposal, viz.: that for \$20, a prize of \$5,000 to \$50,000 was almost certain to be secured—and all for the purpose of getting up a future business in that locality! The prospective business to be derived from that town must be large, if to merely build it up, the lottery dealers can distribute five million dollars (\$5,000,000) in prizes to the one hundred persons who will barely send \$20 each, or \$2,000 in all. It is an unmitigated swindle.

How Mr. Jones Tilled his Land.

AN INSTRUCTIVE CHAPTER.

MR. EDITOR:—I have "a bone to pick" with somebody, and neighbor Smith will be tempted to pick your bones almost, if you come this way. That dialogue which by some means got into the *Advocate*, has, I see, been copied into half the papers in the country. It got into our own county paper, and our neighbors having read it, have applied it to Smith and myself, and when I meet a neighbor, he doesn't say "Good Morning Jones," as of old, but it's always "Good Morning Mr. Big Potatoes." I don't care anything about it, indeed I rather like it—and always answer "let them laugh that win." But neighbor Smith don't like his new name of "Small Potatoes"—though, after all, he rather enjoys the notoriety I suspect; he says, however, there are so many Smiths that none but his neighbors will think that he is the man. Moreover, he has confessed to me (we are on good terms) that the dialogue will do him good; and I think it will, for it has set him thinking, and that is just what is needed with most men. Not many let their brains save their hands or heels. He has followed my advice and taken the *Agriculturist*, as you doubtless know by your books; (his name is not John Smith). The extra numbers for November and December which you sent him free, he has read all through, and has borrowed and read a dozen or more of my back numbers, and he says I must look out, for he is going to turn the scales, and beat me on the next potato crop. So, after all, you will be civilly treated even by Smith, if you will call here again next Summer. But this by the way. I commenced to fulfil my promise to describe the previous treatment of that potato field: The history will only be a common plain one, but I will try and make it just such an one as I would like to get from my brother farmers about their fields.

I came here from N. Hampshire, in the Fall of 1836, and bought this farm of an earlier settler who had just made a beginning, building a log cabin, and clearing ten acres, when he got discouraged, and went west to the prairies, glad to get from me \$5 an acre for what cost him \$1.25. I assumed his debts of \$300, and paid him \$500 cash for the 160 acres. This left me a capital brought from the east of not quite \$500, which I used up the first year in getting animals, implements, and seed, and in paying a man to help me clear off the woods. Part of the ten cleared acres was in grass, and the rest I planted to corn, together with eight acres of new land we cleared during Winter. Five acres more we got into oats, and 2 acres into spring wheat. The crops of the first summer were only moderately good, but by close economy we saved enough to get in 15 acres of Fall wheat, and to live through the Winter, our cattle living mainly on stalks, straw, and "browse" or tender twigs.

Well, I kept on in this way, clearing and enlarging my fields, until in 1848, I had about 90 acres under cultivation. We had rather poor buildings, and had barely managed to pay my predecessor's debts and to get my land fenced, and supplied with fair barns and sheds. We stuck to the old log house, which by sundry additions and fixing up, had been kept quite comfortable. We often talked of putting up a frame house, but wife always said: "the old house will do for a while; let us get out of debt, and enough ahead for a good house when we do build."

I intended to keep all my land (160 acres) so as to have enough for myself and boys, one of them nearly a dozen years old; but some of my

older fields more distant from the barn, and not manured, began to show wear, and the constant advice of the *Agriculturist* to sell off part of my large farm and apply the proceeds to the rest, finally told on me, and so in 1848 I fixed up a log house and offered 60 acres (including 10 of my cleared land) for sale, at \$25 per acre. It was taken by one of my old New-Hampshire neighbors—\$600 cash, and \$900, in nine annual payments, with interest.

We devoted \$500 to putting up a frame dwelling, in the Spring of 1849, in such a form that it made the rear part of a larger structure which was erected in 1855. As we got out the timber during Winter, and hauled the sand and lime for plastering, etc., our \$500 went a good ways in erecting a comfortable dwelling.

The extra \$100 cash, together with the \$100 and interest annually coming in, I had fully determined, through the advice of the *Agriculturist*, to devote to the purchase of clover seed, and to ditching, subsoiling, and other improvements. (I got the first subsoil plow seen here.) This determination I adhered to strictly, and the good effects were so manifest that I have often gone beyond the amount annually received in principal and interest from the 60 acres sold off. The general results you have seen, Mr. Editor, and I need not describe them.*

But you wanted a particular history of that one field, so I will give it: The land was a heavy loam, inclined to clay, and covered with tall white and black oaks, with a sprinkling of beech, maple, basswood, etc. I cut out the under brush and all the trees, except the oaks, for firewood and charcoal. The finest oaks, also, I cut down and hauled out for fencing, and building. The rest, say one tree on every two square rods, on the average, I simply girdled and left them to die. The ground was then thoroughly harrowed and winter wheat sown, which yielded a fair crop. Many of the trees were blown down, which necessitated the use of the sickle instead of the cradle in many places.

The high winds of the Autumn and Winter following, turned many of the trees out by the roots. The rest we cut down. After taking out a year's supply of firewood, and one or two lengths for rails from such trees as would answer, we commenced clearing. Instead of chopping up the fallen trees, we burned them into suitable lengths for log-rolling, by placing broken limbs across the bodies every dozen feet or so and kindling a fire. By using the brands, we were able to burn through most of the logs. In two or three days of dry weather a man can in this way burn in two, five to ten times as many logs as he can cut with the ax. The logs and limbs were piled in heaps and burned, and the ashes gathered and spread upon my meadows. This plan of clearing is the easiest and

[Yes, we have seen them: Mr. Jones has a farm that will do any one good to look upon. His fields, though a heavy soil originally, are mellow, deeply worked, and dry. The buildings are not costly, but neat and every way comfortable. He has added 10 acres of woodland by purchase, and cultivates 95 acres of the original 100 left after selling off 60. Finer corn, potatoes, etc., than his, no one could wish. He is out of debt, and has already helped his eldest son some \$700 or \$800 towards paying for a poor run-down farm in the neighborhood, which will doubtless be brought up to fertility by one who has been trained up to habits of economy, and taught to read and think about his business. The old farm is worth at least \$150 per acre for cultivation, and \$115 an acre has been offered for it and refused, which is \$40 an acre more than the market price of similar farms adjacent. It is supposed to be better land, but good, intelligent culture only has made it so, for the soil throughout the neighborhood is very much alike. We call Mr. Jones a rich man—he is independent, has a sure source of income, and is contented, which is more than can be said of multitudes who have more acres, or vastly more money value in other property.—Ed.]

cheapest I know of, and I describe it particularly, as it may not be generally known. [It is extensively practiced on heavy timbered oak lands at the West.—Ed.]

The next Spring I plowed the field after pulling out all the stumps we could, and planted it to corn, getting a good crop, besides a splendid yield of pumpkins. In the Fall I sowed it to wheat, and sowed clover seed liberally in the Spring. It was pastured the next Summer, and mowed the Summer following. Most of the stumps then came out easily. The second growth or aftermath of clover was turned under, and wheat sown with clover seed in Spring again. It was pastured in Autumn and mowed in Summer following. In Autumn it was turned over deeply, light plowed in Spring, and corn planted, yielding only a fair crop. I now concluded to experiment upon this field with some of the hints I had gathered from the *Agriculturist*.

SOLOMON JONES.

[The details of Mr. Jones' experiments are interesting and instructive, and being lengthy, we reserve them for a second chapter.—Ed.]

The Farmer, the True Aristocrat.

N. P. Willis, of the *Home Journal*, says: "The star of the farmer is on the rise. To be a distinguished man now-a-days, there is no safer or more substantial way than to be an 'eminent agriculturist,' 'successful horticulturist,' or the like—a Longworth, a Wilder, a Grant, a Johnson. There is no way for a man to be 'looked up to,' for the next half century, like being an enterprising and successful farmer, and there is certainly no way to pass life so pleasantly, and no vocation which is so sure to keep him company till he dies."

A Stack Shed.

To the Editor of the *American Agriculturist*.

Farmers in this vicinity thresh their grain and throw the straw in a pile out of doors at the barn, for the cattle to run to all Winter. Without a very large barn it is difficult, in threshing with a machine, to avoid doing so. I have improved somewhat on this mode. Instead of throwing the straw on the ground, I set nine forks of trees, say a foot in diameter, firmly in the ground, in three parallel rows, about 16 feet apart one way and 7 feet the other. I then put logs across lengthwise, and laid poles and rails over them, on which the straw was stacked sloping like a roof. It is high enough for cattle to go under. They pull down enough and not too much for bedding, and keep in good condition with very little grain. The manure is kept under cover, and they seem to be comfortable. This is perhaps not the best way, but it is better than many do; is very little expense (only about two days work for two hands) and is the best that many can do.

Hamilton.

JOHN R. LEWIS.

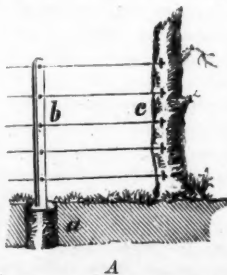
FAWKES' STEAM PLOW.—This was exhibited at the Illinois State Fair held at Jacksonville. The trial was made under adverse circumstances, but eleven and a half acres were plowed at intervals during the day, with but two men in attendance. At another trial three acres of raw prairie were turned over in one hour. This was certainly good work. Some fault is found—we know not how justly—with the recent and past action of the managers of the Ill. State Society, in regard to their not standing up to their premium offers. There are, of course, two sides to this, as to all other questions.

Portable Sheep Rack—A Hint to American Manufacturers.

In the advertising columns of an English Journal (the Mark-Lane Express,) we find a cut from which we re-engrave the accompanying sketch. It appears to be made with an iron frame, covered on the sides and underneath with heavy iron-wire net-work, and on the top with galvanized iron or zinc. A board or canvas covering would answer. Trap doors in the top serve to put in the hay, or the whole cover might be made to raise up. A single or double trough at the bottom catches all droppings. The feet are pointed to stand firmly in the ground. The whole is light and portable, and ornamental withal. They are not very costly, as we notice that they are advertised by Thos. Perry & Son, Staffordshire, (Eng.) 6½ feet long with double trough, complete, for £2. 17s. 6d., or about \$14 each. Manufactured here they would probably cost a little more, if made with metallic roofs, etc. Any one might prepare something similar, say a 3-sided wooden frame, covered on top with boards, and on the sides with the netted wire. Wire net-work, the meshes or holes 3 inches in diameter, is sold here for 40 to 50 cents per running yard 3½ feet wide. Four yards would suffice for a rack six feet long, and 3½ feet high on the sides.

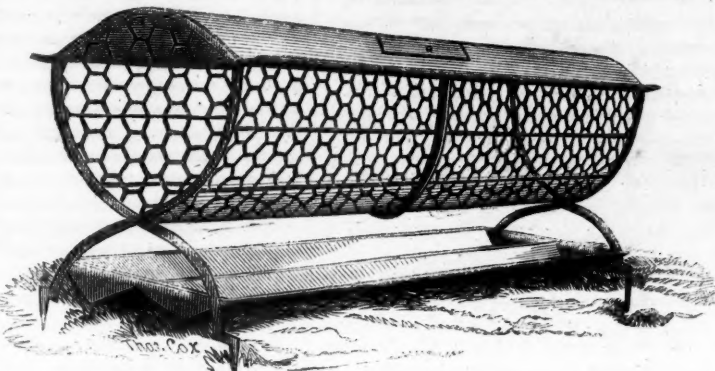
Wire Fences.

In some localities too far north for successful growth of hedge plants, and where timber and stone are not available, wire fences may frequently be adopted. Manufacturers claim that they are durable, economical, and that they will answer all the purposes of a perfect protection against cattle. This advantage at least they have over hedges, that they take up no appreciable room, exhaust no soil, need no annual shearings, shade no vegetation on either side, and permit the plow and scythe to be used close up to the sides of them.



For pleasure grounds, some of the styles offered in market are quite desirable. They may be used for partitions between the ornamental plots and the adjoining pasture or orchard. If painted a grass-green, they are invisible at a short distance. If one has a large area of lawn or park-like surface around his dwelling, and does not wish the trouble or expense of keeping the whole under the scythe, all he needs to do, is to surround fifty or a hundred feet of turf next his house with a light wire fence, keep the grass within it nicely dressed, and let that beyond it be kept trim by flocks of the finer

breeds of sheep or cattle. If the ground devoted to pasturage has any handsome shrubs or low branched trees in it, (evergreens, for instance,) they may be surrounded by movable hurdles of the same material. We have seen the above finely carried out in the grounds of Mr. Sargent, at Fishkill, N. Y.; and similar illustrations may be found in many parts of the country. It



should be added here, that if wire fences are kept painted, they are almost indestructible, and that being so light in their structure they offer little obstruction to the wind, and therefore, are less liable to be blown over than wood fences. The mode of building one of the common styles may be learned from the annexed cut. (A.) Posts of cedar or locust, eighteen inches long and six inches in diameter, are set in the ground, six feet apart. The tops of the posts stand just even with the surface of the ground. (See a.) Iron supports for setting into these, are made by cutting common bar iron, an inch and a quarter wide, and ¼ inch thick, into a wedge-shape. Five holes are then punched in them to receive the wires. They are then driven firmly into the wooden posts, and made to stand as near as possible to the perpendicular. (See b.) Next, the wires are drawn through the holes, and at every hundred feet, or thereabouts, are fastened to stout wooden posts, or trees. (See c.) Experience shows that ordinary posts, however well set, will not answer for permanent braces. Long and heavy tension of the wires will pull them out of plumb, and leave the wires hanging loose. It is therefore desirable to run the fence where it can have the support of a stout tree, at about once in a hundred feet, and better if oftener. In the absence of trees, heavy posts, or bracing, is required.

Annealed wire of the size number 6, is most commonly used; but where there are few tree-braces, or where cattle run, No. 4, or 5, is better. Poor wire is often sold to those who can not judge of its quality: therefore let the purchaser look out for flaws and splinters, or what is called "rotten iron." Coal tar may be used in ordinary places for coating it; though in ornamental grounds it should be painted green. In fastening the wires to trees, holes half an inch in diameter may be bored near one side of the trunk, and the wire passed through and looped. Where the wires pass through the iron uprights, they should be tightened by wooden wedges, thus saving severe tension at the wooden braces and trees. Of course, no one will fail to provide himself with screws (one for every 15 rods) to provide against the expansion and contraction of the wires in Winter and Summer. The agricultural warehouses furnish them at fifty cents each, or less. A fence of this kind can be put up for from seventy five cents to one dollar a rod. If run through a wood or along

its borders, the expense of posts can be mostly saved by using trees instead.

We have lately seen a mixed, wire and wood fence which works very well. The posts are of red cedar; there is a bottom board of pine, six inches wide, and a top rail of pine three inches square. The intermediate three rails are of No. 5 wire. The whole is painted white, and looks well. The wood-work serves to keep the whole upright and firm, and gives the fence an appearance of solidity and finish.

Barreling Apples, Potatoes, etc.

Much loss is sustained upon apples sent to market for want of properly putting them up. The barrels are apparently filled and headed; but in handling, and especially in carting them, the fruit is shaken down together, and every motion jars the whole contents, until nearly every apple is bruised, and the market value is reduced one half. To prevent this, the fruit should be well shaken down in the barrel, and the top layer pressed down by the head, so that no amount of jolting will loosen them. This will bruise a few upon the top, but the remainder will come out safe. The accompanying engravings show a very simple and convenient plan for pressing and holding the head in place until it can be fastened. It was communicated for the *Agriculturist* by D. Lyman, Middlefield, Conn. The figures require but little explanation. By the plan shown in Fig. 1, a piece of scantling or plank is laid across the barrel head when ready for fastening down. A lever, with one end under a block nailed to a post or the side of the building, is brought down and held until the head is properly secured. In Fig. 2, the end of the lever is passed through a ring



Fig. 1.

Fig. 2.

which is attached to a rope fastened by a hook and staple to the board on which the barrel stands. The latter plan is rather more convenient, as the apparatus can be taken to any desired place where the packing is to be done. To save space, the full length of the levers is not shown in the engravings.

A Husking Peg—Simple and Old-fashioned.

Mr. C. J. Thomas, of Wilcox Co., Ill., refers to the Corn Husker described on page 318 of last volume (Sept. No.) and describes a very simple implement which can be made in a few minutes. As we used the same implement 25 years ago, it occurred to us that it was too common and too generally known to need description. But the first farmer we spoke to about it, said he had never seen nor heard of it. That being the case, we suppose there must be others in the same situation, and for the benefit of such we will describe it, remarking that it is very effectual and very useful in the absence of anything better.

It is made of wood, tough hickory is the best,

about 4½ or 5 inches long, whittled round and smooth, about ¾ inch in diameter, gradually tapering a little, and brought to a somewhat blunt point. To the middle portion a short leather strap is attached for passing the middle finger through. A couple of notches in the wood prevent the strap from slipping. With strong leather, it is sufficient to simply make two holes through it and thrust the pin through. The strap is passed over the finger, and the pin grasped in the hand, leaving the point out facing the thumb. To use it, the point is thrust into the husk, the thumb pressed against the portion of the husk raised from the stalk, and the part thus loosened is torn off. The pin answers the purpose of a fifth finger and nail—saving the natural nails, and much wearing of the finger and thumb.

A Cheap Boiler.

A subscriber of the *Agriculturist*, Moses Park, Walker Co., Ga., describes a cheap boiler, constructed originally for evaporating syrup, which he considers quite convenient for cooking food for animals. It is simply an open box of 2 inch plank, 5½ feet long and 21 inches wide, and 14 inches deep, put together with 2½ inch screws. For the bottom, a piece of thick sheet iron is put on with 1½ inch screws, 2 inches apart. The screws are placed thus thickly to close the joints tight. The materials cost \$3.50; the work can be done by almost any farmer. Besides being cheap and easily made, a boiler of this form presents a large surface to the fire, and is therefore economical of fuel. It can be set on brick work, and in the absence of other conveniences, will well repay the expense in the additional value given to feed for swine and other stock. It is particularly valuable for evaporating syrup, where better apparatus is not easily obtained.

A Puff for Two Churns.

If all the contrivances invented for churning, could be brought together, they would form a museum well worth visiting. There would be the dignified old fashioned upright dash churn, churns of barrel, box, and tub form, some with revolving dashers, some with stationary dashers, others with no dashers at all. Cranks, paddles, cog wheels, and gearing would abound. The butter mill, constructed to grind milk as though it were paint, would divide attention with the goat-skin bag, which the Arab swings to and fro to extract butter from mare's milk. It would seem that little ingenuity need be expended in so simple a process as separating butter from cream, and that is perhaps one reason why so many churns have been invented. The veriest tyro in mechanics can get up an arrangement that will "make the butter come," and as there is no end to the ways in which it can be done, every man has suited his own fancy, and yet accomplished the desired result; so that we have before the public at least three hundred "best churns ever invented." The number is continually increasing, and it is amusing to hear the reasons given for the different arrangements. To-day a man calls upon us to make known to our readers the superlative excellences of a churn consisting of an air-tight barrel, into which air is compressed with an air-pump, to increase the amount of oxygen to combine with the cream. Only yesterday another called to get before the public his churn, in which the air

is pumped out of the barrel, to remove pressure, and hasten the bursting of the butter globules. As both of these parties want a puff in the *Agriculturist*, we hereby give a certificate that butter can be made in each of their implements. The quantity and quality will depend upon the quantity and quality of the milk, and the care in the after processes of working and salting. The "points" of a good churn are simplicity, ease of working, means of thorough agitation of the cream, a form that admits of ready removal of its contents, and ease in cleaning. Many different patterns combine these excellences, and we therefore recommend all such.

Mowing Machine Invention by a Lady.

It is stated in the *New-Jersey Farmer*, that Elizabeth M. Smith, of Burlington, has invented an arrangement to be applied to reaping or mowing machines, by which danger from accidents is greatly lessened. The most frequent and serious casualties in the use of these machines, have occurred from the driver being thrown into contact with the knives while in motion; several cases of loss of limbs, and even of life in this manner, have been reported. By this invention, the knives are "in gear" only while the driver retains his seat—as soon as he leaves it, they cease to work. The end to be attained is certainly desirable, whether the above invention fully secures it, and is otherwise unobjectionable we do not know, not having seen the apparatus.

A New Leather—Alligators Useful.

Not long since we noticed in a shop window in this City, a pair of boots made from leather of singular appearance, having a peculiar wrinkled and scaly look, somewhat as if a hide had been scored and hacked in every direction while removing it, and then tanned so as to show all the irregularities. Upon inquiry, we were told it was Alligator skin, properly tanned, and that besides being as pliable as calf skin, it is much more durable than ordinary leather, and completely water-proof.

We learn from the Shoe and Leather Reporter, that the Prince of Wales and several of his suite were much pleased with the new fabric, and ordered several pairs of boots from it. The fashion being thus set by royal authority, we may expect a general onslaught of the reptiles to supply the demand. Perhaps some enterprising Yankee may find it worth while to breed the animals for their hides. The blood might find a ready sale at the Patent Office, when the functionary who recommended it as a specific against insects, comes into power again, while Prof. Somebody would doubtless purchase the carcasses to manipulate into progressed manure.

Paper from Corn Husks and Leaves.

It is announced in European journals that by a recent discovery, paper has been made of the leaves and husks of Indian Corn, equal, and in some respects superior to that made from rags. The inventor, Moritz Diamant, is a Jewish writing master, in Austria, where, it is stated, satisfactory experiments on a large scale have been made. If this be true, it is good news to the farmers of this country, and not less so to newspaper and book makers. The price of paper, made from rags, has advanced so rapidly, from scarcity of the raw material, as to form a serious item in the expenses of the publisher.

American manufacturers will not be slow to avail themselves of any advantages this process may be found to offer, and as this is the first corn-growing, and also the greatest book and newspaper consuming country in the world, the success of the invention is a matter of the greatest interest.

Street Scrapings for Manure.

Not the least important source of manure is the road-side. Nearly all highways in the country are "worked" annually in the following way: Several furrows are run on each side of the wagon-track, and then the dirt is scraped or shoveled into the middle of the road, and rounded over so as to shed water. That this ordinarily makes a good road, we would not venture to affirm. But we are very sure that this dirt, so often plowed up and thrown back upon the track, is quite rich, especially on roads that are much traveled, and would make a good dressing for anybody's farm or garden. It contains the washings of the road where the droppings of horses and cattle have been deposited during the year, and mixed with the soil. The turf also which is plowed up, is quite valuable in the composting yard.

Possibly, the road commissioners would object to having this soil carried off: they have a legal right to object. But if the farmer should agree to return a load of good gravel or pounded stones, for every load of soil taken away, it would prevent all complaints. And this would be a good bargain for all parties concerned.

For the American Agriculturist.

Liming Lands—Some Hints given and more Wanted.

The questions are often asked: what lands are benefited by the application of lime, how much should be used to the acre, and how often?

Undoubtedly, some lands are more benefited by its use than others. Such, for instance, are clayey soils, which contain large quantities of vegetable matter: the lime acts upon them as a decomposer of organic substances, and fits their elements to become food for growing plants. It renders stiff soils more friable, makes them more easily penetrable by the roots of plants, and more easy of culture. It exterminates sorrel, and mosses. On wet, undrained land, it is of comparatively little use; and indeed this is true of every kind of manure or stimulant. Draining is the first requisite on such soils, without which all other applications are time and labor thrown away. [We admit that draining or the removal of water is a prime requisite, yet when this is not done, liming is all the more important for wet soils, to counteract as far as possible the coldness and "sourness" of such land.—Ed.]

In applying lime to cold and clayey land, it should be but partly slacked before using. If wholly slacked, it will not act powerfully upon the strong vegetable substances in the soil, nor neutralize the acids and noxious gases which abound in it. If partly slacked, it can be spread much more readily and evenly. [Unless the lime be thoroughly slacked to a fine powder, it can not be spread evenly, but will fall in lumps. We should say water-slake it thoroughly, that it may be as finely pulverized as possible.—Ed.]

After witnessing the beneficial effects of a single application of lime, some farmers judge

that it may be used annually with similar results, but they soon find out their mistake. It should always be remembered that it does not act like common barn-yard dung, as a manure for plants, but rather as a stimulant to the soil, enabling it to give out certain elements which it already contains for their nourishment. After it has decomposed the better part of the vegetable matter in the surface soil, it should not be again applied there, until that soil has had a period of rest, and has stored up more vegetable matter. Five or six years is none too long an interval between each liming. [We would advise, rather, to make more frequent applications of smaller quantities. What say those having had long experience in the use of lime? Let us hear from them.—Ed.] In the meantime, clover or some other green crops should be grown, and several dressings of barn manure applied. The old proverb is true,

"The use of lime without manure,
Will always make the farmer poor."

While lime is most useful on cold, clayey, or peaty lands inclining to wetness, it may sometimes be used on light or sandy soils, especially if vegetable manures are applied in rotation. It will serve to give them compactness. But on pure sand exhausted by long tillage, it only makes matters worse. As a top-dressing for grass lands, it often acts beneficially. The quantity of lime needful per acre, will depend on the nature of the soil. Sandy lands need only about seventy five bushels to the acre, loams one hundred, and clay one hundred and fifty. [Here again we must differ with the writer. Would it not be better to apply one-fifth to one-fourth the quantity recommended, once in a year or two, than to use so large a quantity at long intervals? We conceive that lime acts mainly to decompose organic matter in the soil. When too much is applied at once, it literally uses up the vegetable matter in a brief time, and makes the soil poorer for some years afterward. But apply a smaller quantity annually, and it decomposes enough matter for one crop, leaving the rest to be similarly used for the following crops.—Ed.]

Lime composted, becomes a manure as well as a stimulant. For this purpose, let it be first mixed with peat or clay, turf or other good soils, and after lying in heaps for a while, it may be spread on the land broadcast. The amount of lime in the compost must be proportioned to the condition of the soil to be manured, a light soil having less, and a stiff one more lime. It may be spread with a shovel from a cart or wagon, choosing a calm, clear day for the work. After it is spread, let it be turned under a few inches deep by a plow—a gang-plow is convenient for this operation. For Spring crops, apply in Spring; for wheat, early in Autumn. Prof. Way, of England, recommends applying lime in solution, mixing it with a large quantity of water, forming what is known as the "milk" of lime, then adding still more water and distributing it over a field by means of pipes, as Mr. Mechi does his other manures. He also advises to use only eight or ten bushels to the acre, and to apply it every two years.

That lime might be expected to benefit land, follows from the fact that every crop of grain, hay, or roots, carries off a good deal from it, and it must be restored in some way or the land will be impoverished. Wheat, barley, oats, or clover, can not be raised in perfection, where lime is much wanting. Potatoes, turnips, and other root crops are benefited by it.

And yet, true as it is, that lime often acts

beneficially, in many cases it produces no apparent effect. Experiment alone can determine certainly where it will be useful. No one should try it expecting such marked results as often follow the use of nitrogenous manures. These last must always be our main dependence. X.

FURTHER REMARKS.—As seen by our notes in brackets, we do not fully agree with the writer, and we have printed the article mainly to call out details of experience from those who have practiced liming for many years, and noted its effects. The subject is one of no little importance. Lime is used vastly more than any other fertilizer—yard manure only excepted. Tens of thousands of cultivators have found it a cheap, profitable application. With some it has been useful at first, but worse than useless afterward, others have derived no benefit, others still have used it for a score of years and continue to do so with good results.—Ed.

Lime Questions to be Answered.

In notes to the preceding article we have indicated some questions connected with the subject of liming land. This is a most important question to three-fourths of the cultivators of our country, if not to all. In a former paper we have set forth pretty fully the results of our experience, observations, and theories upon the subject. (See Vol. XVIII, page 72, March No.) But the best information can be gathered by comparing the experience of a large number of persons who have used lime for a length of time. It occurs to us that we can not do better than to devote a little space in a future number or two, to giving the result of the general experience. We therefore invite experienced practical men to send us answers to the following questions:

- 1—How long have you made use of lime?
- 2—What is the general character of your soil?
- 3—What is its condition as to wetness or dryness?
- 4—What lime do you use?
- 5—What does it cost per bushel delivered at your fields?
- 6—Do you apply it air-slaked, or slake it with water?
- 7—How much do you apply to the acre?
- 8—How often do you apply it to the same field?
- 9—How do you apply it?
- 10—For what crops do you use it?
- 11—Note the results upon different crops, and any other practical information you can give.

If we can get ten, twenty, fifty, or even five hundred sets of answers to the above questions, and condense the results into moderate space, it will afford much useful information, and aid to a correct understanding of an important subject. Let no one withhold his experience, with the idea that others will say enough on the subject. It is quite as important, also, to know unprofitable results as good ones.

Profitable Experiments with Potatoes.

The following well arranged statement of a successful experiment in raising potatoes, is contributed to the *American Agriculturist* by Mr. W. F. Heins, a gentleman engaged in business in this City, but an enthusiastic lover of Agriculture, and a thorough going book-farmer. He says:

The ground, which is in working order to the depth of nearly two feet, was plowed and ridged

last Fall, the rows running North and South. In the middle of March, this year, it was again plowed, cross-plowed, and harrowed, and well-rotted stable manure, ($\frac{1}{3}$ horse and $\frac{1}{3}$ cow,) was lightly plowed in. On the 23d of April, the drills were made, the compound described below, thoroughly mixed, thrown in the drills, somewhat mixed with the soil, and covered about one inch deep. The seed potatoes, cut in one and two eye pieces, were laid on this, and slightly covered with coarse manure and soil. Equal areas were planted without the compound:

Expenses per acre:
 16 loads manure at \$1 50.....\$24 00
 18 bush. seed at 75c.....13 50
 Plowing, planting, hilling and harvesting.....8 50
 Weeding, (which was done most thoroughly,) digging and housing.....10 50
 Total.....\$56 50

Compound:
 1 bag guano (Peruvian) 100 lbs. at 3c.....\$4 80
 2 bbls. bone sawings.....7 00
 2 bbls. unleached wood ashes.....1 00
 2 bbls. charcoal dust.....75
 1 bbl. land plaster.....2 00
 1 bbl. soil of decayed wood.....0 00—15 55
 Total cost per acre.....\$72 05

RESULT PER ACRE.—With Compound.

Names.	Seed bush.	Crop bush.	Value at 75c.	Cost.	Profit.
Peach Blows.....	18	233	\$219 75	\$72 05	\$147 70
Prince Albert.....	18	280	210 00	72 05	137 95
Red or purple Chili.....	18	235	176 25	72 05	104 20
Mercers.....	18	210	157 50	72 05	85 45

Without Compound.

Names.	Seed bush.	Crop bush.	Value at 75c.	Cost.	Profit.
Peach Blows.....	18	180	\$135 00	\$56 50	\$78 50
Prince Albert.....	18	174	130 50	56 50	74 00
Red or purple Chili.....	18	152	114 00	56 50	57 50
Mercers.....	18	112	84 50	56 50	28 00

Average with Compound 254½ bushels. Profit \$118 82½
 do. without do. 154½ do. Profit 59 50
 Difference.....\$59 32½
 Cost of compound.....15 56
 Surplus in favor of compound.....\$43 77

All potatoes planted with the compound, were in excellent condition, but the Peach Blows, planted without, show black spots inside, even when the outside looks perfectly sound. The Prince Albert and Mercers show but little rot, the Red or Purple Chili none.

How much are Carrots worth for Feeding?

This is a question needing to be answered. Carrots are raised more than formerly, but there is no well settled opinion as to their comparative value for feeding. Various theoretical statements have been published from time to time, by writers on farming, and those who are fond of calculating the value of this or that article of food. But, for ourselves, we are still in doubt as to the real value of a bushel of carrots compared with other kinds of food costing the same price. Here is a case in point. (We of course have our own opinion, but we wish to call out others.)

During the past Summer, notwithstanding the drouth, we raised half an acre of very fine carrots on ground trenched 2 feet deep last Spring. We tried to market them in the city, but could not get an offer that would net over 75 cents a barrel, or 30 cents a bushel, so we kept them and are now using them for horse and cow feed. Hay is \$20 a ton; oats 37 cents a bushel; corn 64 cents a bushel, and other things in proportion. The query is, are we making better use of them, than to have sold them at a price equivalent to 30 cents a bushel over the expense of marketing? What say those who have had considerable experience and observation in feeding carrots to stock. We don't care for the theoretical views of those who do not speak from experience—we have a pretty clear idea of their chemical composition, of their "gelatinizing" the contents of the stomach and all that.

Few city people will yet buy them for cooking, or for food for their horses, and the market is

likely to be overstocked for a while. But if they are actually worth one-third as much per bushel as corn, we can afford to raise them largely. We think that, on the average, four bushels of carrots are produced as cheaply as one of corn.

One question more. How many carrots per day can be profitably fed to a horse or milch cow with all the good hay that will be eaten?

Abuse of the Sugar Beet.

A journal in a neighboring city informs us that for several years past, beets and mangel wurzels have been considerably cultivated in France for manufacturing brandy therefrom; and that this business is proving so profitable there, that many large establishments, once used as sugar factories, have been remodeled and converted into distilleries for making brandy from the same roots. Progress backward! It tells us, also, that enterprising farmers in England are looking into this matter, and inquiring whether they also may not be able to make a penny or two out of the same business. And, as a sort of poultice for tender consciences, we are told that the pulp of these roots, after the juice has been extracted, may be used as food for stock, and for the manufacture of paper.

In some parts of Great Britain, where high manuring has been practiced, forty tons per acre of these roots have been raised, but from twenty five to thirty tons is a large yield. And, without going into the details of the calculation, it is estimated that from \$400 to \$600 per acre of proof-spirit can be realized. After this we are to add the value of the pulp for cattle-feed and for paper-making, at \$50 a ton.

It is only a necessary part of this story to add, that some American farmers and business-men have turned their thoughts in the same direction. But we question whether any thing good and profitable can come out of the business in Yankee land. Excellent sugar has been made for many years in France from the sugar-beet root. Several years ago, many attempts to manufacture it in this country—in New-Jersey and Pennsylvania particularly—were only partially successful: the syrup would not granulate well. This arose, doubtless, from the lack of saccharine matter in the beet roots. It is doubtful, therefore, whether American beets will make good brandy, at least, so as to be profitable to the manufacturer. Certainly, as long as Indian corn can be raised for from 30 to 50 cents a bushel, it will hardly pay to trouble ourselves with growing beets for sugar or brandy.

But even if the business could be made profitable, we should discourage it from moral considerations. "Ah! Mr. Editor, allow us to make alcohol for use in the arts: to this, certainly, you can't object?" The old apology for carrying on the distillery business everywhere. Very likely, a part of the alcohol may be used in the arts, but a large part will go into rum, gin, brandy, and the like, to ruin our neighbors, and perhaps our children. These evil arts we can only endure, but not recommend, by word or deed.

Large Turnip Yield.

The Ingersoll Chronicle, C. W., records the results obtained by twenty one cultivators, in competition for two prizes of \$30 and \$10, offered by Dr. Connor, for the best acre of turnips. The lowest yield was 664 bushels, and the highest, 1,429 bushels per acre. The latter amount was raised by John Reid. The soil was a clay

loam, previously cultivated with peas. The land was plowed, and twenty loads of manure applied in the Fall. Before sowing, the cultivator was used once, and the roller twice. The seed was drilled in 24 inches apart on the 10th of June. The turnips averaged 5 lbs. and 2 oz. each in weight. Mr. William Agur, of the same township took the second premium for a yield of 1,256 bushels per acre, the turnips averaging 4 lbs. and 3 ozs. each. His manner of cultivation differed little from that of Mr. Reid, the difference in yield being mainly in the size of the turnips, which averaged about a pound less.



Pampas Grass.

The Pampas Grass (*Gynerum argenteum*), so called from its native home, the Pampas, or prairies of Brazil, South America, has been introduced into England, where it flourishes well. From the Magazine of Horticulture, we learn that Messrs. Hovey & Co., have tried it in their grounds near Boston, but it does not prove hardy so far north. They subsequently placed some roots in a large tub which received the protection of a green-house during Winter. It was placed in the open air last Spring, where it made a vigorous growth, forming a splendid tuft of long, slender, rush-like leaves, gracefully drooping to the ground. It began to throw up its strong reed-like stems, during the latter part of August, from which sprang flower spikes that reached eight feet in height, and terminated in feathery flowers fifteen inches long, of a light

or silvery color. In its native plains it reaches the height of twelve to fifteen feet, so that a person riding through it on horseback is completely hidden, and a secure shelter is afforded for the wild animals of that region. It will be prized as an ornamental plant chiefly. At the South it can doubtless be grown out of doors, but with us it will be safest to lift it in the Fall, and take to a dry cellar or green-house. When growing, it requires a warm aspect, light and rich soil, and plenty of water. It is readily propagated by division of the roots.

For the American Agriculturist.

A Lady's Experience with Poultry.

Three years ago I moved into the country, filled with dreams of industry, early rising, and above all, fowl raising. I think my predecessor was also imbued with a like idea, for I found ample and well contrived accommodation for the slender stock of poultry whose existence I had contrived to prolong in a limited back yard, in the close built town I had quitted; and whose numbers and capacity for laying, I now proposed to myself to wonderfully augment.

As Winter came on, I kept my hens shut up on every cold day; which I have proved to be necessary, if you wish them to lay well. The most abundant feed will only keep vitality in their chilly bodies, if they must stand shivering under the cutting winds of mid-winter. True, they will often go out of their own accord, if the door is left open, but they do it only from habit, as instead of hunting for food, they huddle in the most sheltered places near their house.

The hens once warmly quartered, how can they be fed cheaply so as to average one egg daily, in all the 365, and still be kept fat? Profound question, whereon agricultural journals have uttered wisdom from all time! The first winter of my experience, a marvelous recipe stared from every newspaper—impossible, it said, to fail of the above results. It was an ingenious conception. First you were to take a pail of boiling water, endue it with a certain quantity of bran, roast potatoes hot from the oven; then rake out a shovelful of hot coals, and lastly add egg shells, brimstone, and salt. Diabolical, slightly, yet morning after morning, I patiently decocted this infernal broth. It would have drawn tears from any ordinary grindstone, to have beheld the hapless fowls shifting their legs and peering their eyes sadly toward it—weighing, it would appear, the choice of going hungry or scalding their crops with the seething mess. I imagined their steady laying solely attributable to my perseverance, yet the next winter, when abated enthusiasm led me to adopt a simpler method, I could perceive no falling off at all. Hence, I infer, fowls will lay on anything eatable, only so they have enough of it.

I commenced my first Spring with about twenty five fowls, both cocks and hens, and by Fall had increased my stock to ninety, beside having killed a dozen or so during the Summer. I have gone on since with proportional success, I have eggs in greater or less numbers, according to the season, all the year round. It is expensive work, I have found, to starve a hen; therefore they are fed plenty of corn, wheat screenings and whatever odds and ends are convenient, which they will eat, occasionally including bran mixed with warm water. They are exceedingly fond of fresh meat chopped fine, which also stimulates them to lay.

For persons living in the country and having no constant social occupation, it is possible for a

little fowl fancier-ing to become very interesting. It is really amusing to watch their endless maneuvers, and study their various characters.

Now a "green" person surveying a regiment of dame partlets and consequential gallants, would perceive no difference, save in shape and tints. As well go into a human gathering and conclude all there were mentally alike, simply because formed after the universal model. I do not believe there are many leading instincts in the human mind, which do not find their counterparts in these bipeds. In our own collection we have fowls of every shade of character—the weak minded hen, the well balanced biddy, and the regular virago. Hens there are whom one positively respects for all those qualities which demand the same sentiment in humanity. Others we equally despise—"shiftless" hens, hens who haven't the moral courage to sit the allotted three weeks, or if otherwise, to bring up a family with any success. A hen we respect, is generally designated "old biddy," while nothing is too contemptuous for the others. Among these latter we have one inveterate old cackler in half mourning, long known as "Widow Bedott," while a stately pullet who has reared numberless broods in entire respectability, answers to the call of "Mrs. Hannah Moore." LOUISE.

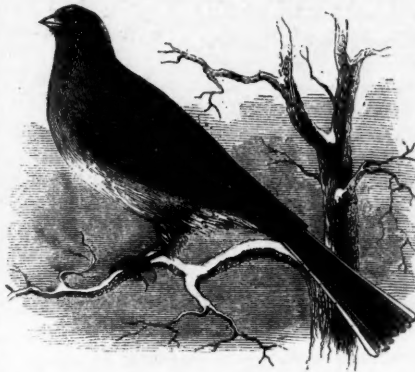
Butter too good for Market.

Epicures sometimes display a rather suprising taste in their choice of cheese, preferring that which is spoiled for most palates, but it is something new to find that butter may be made too good to suit customers. On this side of the water, the dealers complain that enough of a prime article can with difficulty be found, and "cute" as Yankees are supposed to be, they have yet a lesson to learn in adulterating butter to fit it for a ready sale.

A dealer in England carried a lot of prime Welsh butter, noted for its superior excellence, to London market, and was told it would not suit. "And why not?" inquired he. "It is too good," replied the city merchant. "The Londoners or Cockneys have a peculiar taste for butter; they don't like a wholesome, honest article, but something that will cut like clay,—something that will spread stiffly over the bread, without permeating it, and therefore butter is prepared in a peculiar manner for London market. They mix it with oleaginous and farinaceous substances, and make it thick and hard."

We have sampled lots of butter that tasted as though prepared by some particular process by which indescribable flavors had been added, but the above described article has probably not yet reached this market. When it does come, may we not be there to taste.

EXTRAORDINARY YIELD OF WHEAT.—The American Farmer states that Col. N. Goldsborough, of Talbot Co., Md., had 27½ acres of wheat the past season, which yielded a trifle less than 55 bushels of 60 lbs. each, to the acre. Nine acres yielded 64½ bushels per acre. The field was dressed with unrotted farm-yard manure, marsh mud, woods mold, marl, and shell lime. The wheat was drilled in October 4th to 7th, one inch below the surface, at the rate of two bushels on one acre, and one bushel and sixty one hundredths upon the remainder. The variety was the smooth headed, white wheat, brought from North Carolina a few years ago.



Familiar and Useful Notes about
Common Birds.....II.

THE COMMON SNOW BIRD.

Very closely allied to the sparrow, in size, form, and many of its habits, is the Snow Bird, the *Niphaea hyemalis* of ornithologists. It is so nearly related that it may as well be called one of the family. It is common to all the United States, east of the Rocky Mountains, but appears only at stated seasons, in the southern portions, while it is a constant resident of New-England and the northern Alleghanies. It is so familiar in its approaches to our houses, frequently alighting within a few feet of the child that gives it food, and is so well known, that a particular description seems to be unnecessary.

Like the goldfinch, described in last month's *American Agriculturist*, upon the approach of Winter they collect in flocks, and subsist upon substantially the same description of food. We do not quite agree with the usually reliable Audubon, that they will not suffer any other bird to keep them company, for we have often seen flocks in Winter accompanied by one or more snow lark-buntings, living together upon terms of the greatest apparent friendship. In the pursuit of food it is very industrious, and more accustomed to frequent our farm yards, than any other Winter bird. It avails itself of the labors of the domestic fowl, which it may often be seen following up, feeding upon the seeds which the fowl has scratched to the surface, and passed by as too small for its use. It is also said to follow the wild turkey, the squirrel, and the grouse, in their wanderings, for the same purpose. What we have said of the goldfinch, applies with equal force to the snow bird. Its entire subsistence in Winter is derived from the seeds of grasses or noxious weeds, which the farmer has forgotten, or has not found time to eradicate and destroy.

A singular effect is noticeable in the flight of the snow bird. Its outer tail feathers are white, and contrast strongly with the general dark aspect of the body. When they are spread in the rapid movement of flight, the bird appears to be nearly white. It possesses the singular peculiarity also, noted in the goldfinch, of uttering its note continuously, when on the wing.

It is probably true, that there have been vagabonds, who have actually slaughtered this little glory of the animal creation, for food; otherwise, the statement that they are delicious eating, could not have found its way into the books. We trust for the honor of the race, that in these days of refined humanity, no such savages exist. They should go out of fashion, with heathen and cannibals.

It was only during the last Summer that we became acquainted with the breeding places of this bird. Aware that in one locality it was

migratory, and that its breeding places were not far distant, probably, we had been for some years on the lookout for its nests. In the early part of last June, during a trip to Mount Mansfield, the highest peak of the Green Mountain range, we noticed many of these birds around the base of the mountain. Their numbers increased as we ascended, until on arriving at the top, we found them more numerous than any other species. There was scarcely a moment when several were not in view. They appeared to fraternize very amicably with the black cap warblers, which were also noticed in unusually large numbers. Our time on this occasion did not permit us to search for nests, but in the course of a visit to the same place a month later, the nests were found in abundance. The young birds were then nearly fledged. The nests were not unlike that of the Song Sparrow, formed of small sticks and lined with mosses and fine grasses. They were placed upon, or very near the ground, beneath the limbs of the black spruce, fir, and *Frazer pine*, near the top of the mountain at an elevation where these trees were much dwarfed. [Here, it may be said in passing, that Mount Mansfield is the proper *locale* of the *Frazer pine*. We found the cones in various stages of growth, and there is no more doubt about the recurved character of the bract (the characteristic of the species) than there is of the recurvature of the bill of the American avocets. Whoso doubteth the existence of this tree, or that it is found on Mount Mansfield, we will straightway put down by a host of witnesses, among them the veritable Tim Bunker, himself, who was our *compagnon du voyage* upon the first trip to which we have adverted, and who aided in planting some of them in our unpretending grounds, where they now flourish as witnesses for the truth, and mementoes of a glorious day upon that grand old mountain.]

But few additional particulars relating to the snow bird need be stated. The general color of its egg is a yellowish white, thickly covered with small dots of reddish brown, most numerous on the broadest parts, where, in some places they are confluent. It breeds in mountain districts generally, and the young come to maturity earlier the further south they are produced. It is a summer resident only, of the fur countries, and is found as far south as Texas, only in Winter. It is not found upon or west of the Rocky Mountains, where its place is supplied by a closely allied species of the *Niphaea*, called the Rocky mountain snow bird. We are not aware of any successful efforts that have been made to domesticate it, or induce it to breed in confinement.

L. E. CHITTENDEN.

Honey from Pine and Oak Trees.

Mr. W. Shaw, Madison Co., O., writes to the *American Agriculturist* that in 1858 he found that late swarms of bees, such as are usually worthless, had filled their hives with a superior article of honey. Upon searching for the source whence they gathered it, he found the pine trees in the neighborhood literally covered with bees sipping a sweet substance like dew, which appeared to exude from the bark. He also noticed the present year, after the white clover had failed, and when buckwheat was in blossom, the bees left the buckwheat, and were found busily working upon the scrub-oaks, gathering an exudation that appeared upon a little ball at the base of the leaves. In both these instances the sweet liquid which attracted the bees, was the product of an insect, the Aphis, or plant louse, different

species of which infest almost every variety of tree and plant. They suck out the sap, and eliminate from it a sweet liquid, which is ejected from two minute vessels called honey tubes, for the nourishment of their young. Bees, ants, and other insects eat this "honey dew" greedily. A full description of these creatures was given in the April *Agriculturist*, page 108, vol. XIX.

The Senses of the Bee—Curious Structure of its Wings.

Two naturalists, J. Samuelson and Dr. Hicks, of England, who have been making microscopic investigations of the nature and habits of the bee, incline to the opinion that the antennae or "feelers" of the insect are organs of hearing, and perhaps of smell, as well as of touch. There is no doubt bees possess these senses, though their locality is a matter requiring further investigation.

They report also that they have discovered at the roots of the bee's wings, vesicles with nerves attached, that may serve as organs of smell, which certainly is a curious place to look for a nose; but the wonders of insect life are not yet half revealed.

A beautiful contrivance attached to the wings is worthy of notice. It is necessary to the flight of the insect that it should present to the air as broad and unbroken a surface of wing as possible. To secure this, the front edge of the hinder wing is furnished with a row of exquisitely formed hooks, and on the opposite edge of the anterior wing is a rib or bar, to which the hooks may be attached at the pleasure of the insect; thus giving it the advantages of broad wings, and also enabling it to fold them compactly when not in use.

SAGACITY OF HUMBLE BEES.—A writer in a foreign journal communicates the fact, that during a season of scarcity of out-door flowers, the humble bees entered the green and hot-houses, in search of food. Coming upon flowers, the long tubes of which prevented their extracting the honey in the usual manner, they cut through the corolla, just above the honey, and thus secured the treasure. This looks like something more than instinct; it was an entirely new way of working, exactly fitted to the exotic plants upon which they had never before fed, and which presented new difficulties to tax their ingenuity.

For the American Agriculturist.

Too Poor to take the Paper.

"Will you lend me your *Agriculturist*," asked farmer B—, one of my neighbors, the other day. "Of course I will, but why don't you take the paper for yourself, and have the comfort of it? It only costs a dollar."

"Really I am too poor. It is a grand paper, and wife and the children all like to read it. Am sorry I can't afford it."

Now farmer B— has a hundred acres of land, and, though not the best manager in the world, he might take the paper a great deal better than not. He had just laid in his Winter stock of tobacco, and that cost five dollars; but he could not afford the paper. He had just been to the circus with his wife, and two oldest children, and that cost a dollar, to say nothing of the time lost; but he could not afford the paper. The week before, he went to the horse

race, and lost ten dollars on a bet, to say nothing of the loss of self respect in the gambling operation; but he could not afford the paper. He went to the general muster last month, and that cost him two dollars, beside his time. He loses a hundred dollars every year in manure, which the paper would show him how to save. But alas! poor man, he can not afford it.

CLOVERNOOK.

For the American Agriculturist.

"Can't do without the Paper,"

Said Mrs. Weartherby, as she laid down the November number of the *Agriculturist*, and looked across the table to her husband, who was elbow deep in his political paper, reading the election returns. "You don't think of stopping it do you, my dear?"

"So many papers, wife, the garret's full of them now. A man needs an independent fortune to supply all the wants. Must have a political paper, and a religious paper, and Susie must have her magazine with the fashion plates. Guess that's about enough."

"But you said when you were setting out the new grape vines from Dr. Grant's, this Fall, that you got hints enough on that subject alone from the *Agriculturist* to pay for it."

"Yes, I know, but there's so many things."

"Well if you can't pay for it, I can. The eggs, you know, have been more than doubled this year. Look at this account of eggs sold. Hints all came from the paper. There were twenty bushels of onions, where we did not get five last year. It was the wood ashes you know. Then we have got two cents more a pound for the butter, because it was worked dry and packed in ice. That idea came out of the paper. And there is a hundred more just as good, and I suppose they will keep coming. I can't do without it."

CLOVERNOOK.

How Shelter Saves Food;

Also: How warm houses and warm clothing save food—A few practical Hints from Science to be studied during these cold Days.

Can it be that this subject is fully understood? We have talked and written a good deal about it, and so have others, yet judging from what we see wherever we travel through the country, the mass of people must still be ignorant, or the general practice would be far different. We will flatter ourselves, however, that those whose practice is wrong, have not been readers of the *Agriculturist*. It is below the truth to say that a correct knowledge and practice in the matter of protecting and feeding stock, would, during the present Winter, save two million dollars worth of fodder in this country. The cold Winter is upon us, and the fodder that may be saved, is likely to be needed. Let us state as plainly as may be, a few elementary facts that all should understand. They are worth studying.

The food that is consumed by man and beast, goes first to supply the waste or wear of the body, and what is left is stored in the form of increase in flesh. All that can be saved from waste or wear, is clear gain, or profit, in the form of added flesh.

The body (of man or beast) constantly requires some nutriment from food, to take the place of the particles that are daily worn out by labor or exercise. The less the exercise, the less the food required for this purpose. The more quiet and unrestless an animal can be kept, the

less will be the food required to supply loss from wear of the muscles and other organs.

The greatest amount of waste in the body, however, is the consumption of food to keep up the natural heat. How is the body kept warm? Why, really, just as a house is kept warm, by the oxydization of "carbonaceous materials, or in plainer words, by the burning up of materials, like wood and coal, which contain a large amount of an element called carbon or charcoal. Heat a piece of wood away from the free access of air, to drive off its water chiefly, and you have a bulk of charcoal left nearly equal in size to the original billet of wood. Heat hard coal, called "stone coal," in the same way, and you have a mass of coke left, which is like charcoal. Heat potatoes, turnips, corn, wheat, oats, hay, straw, bread, meat, or any other food, just as you heat wood in the coal pit, and you get in every case a mass of charcoal. Charred meats, bread toasted black, etc., are familiar examples, only that in these cases the heating is done in the open air, and a part of the charcoal is driven off or carried away by the air. We repeat then, that all kinds of animal and human food, are largely composed of carbon or charcoal. It does not appear in its black form, until the other materials are driven off by heat, but the carbon is none the less there because we do not see it with a black coat on. Our animals are eating large quantities of this carbon in their hay, grain, and roots, and we eat it in our bread, meats, and vegetables.

In the fire place and stove, the air (its oxygen) unites with the carbon of the wood or coal, forming a condensed heavy gas (carbonic acid) which goes up the chimney or stove pipe. This condensing of the air with the fuel (or carbon in it) gives out heat that was before latent or concealed, and our rooms are warmed.

In the bodies of men or animals, the fuel (food) is chopped up by the teeth, and by the gastric juice in the stomach, and the particles are carried all over the body by the blood. We take in air through the mouth, just as the stove takes it in through its draft. The air goes into the lungs, where it mixes with the blood, and is carried all over the body. When a particle of this air meets a particle of food, it unites with it—they burn, just as the food would burn when the air came in contact with it in the stove. The result is, a little heat is given out. The myriads of food and air particles constantly meeting within the body together, produce heat enough to make up the waste heat constantly escaping from the surface.* In cold weather more heat is carried off from the body, and we, and our animals, must either have more fire (more food and more air) to supply the greater waste of heat, or we must put on more clothing, or stay in warmer buildings. (The carbonic acid, which in the stove is carried up the pipe, is in the body thrown into the lungs and out into the air. A large number of persons breathing in a close room spoil the air the same as if a stove pipe opened into it.)

Practical Deductions.—The above explanations are of important application. To keep a house warm, we must either make the outer walls so close or non-conducting as to prevent the escape

*We understand the two theories—one that the food is all oxygenized in the lungs and the heat carried through the body by the blood; the other, that the oxygen is carried into the blood and the food oxygenized at different points. Without designing to favor either of these theories, we have used the latter for illustration, as for our purpose either of them amounts to the same thing practically.]

of heat, or we must burn more fuel to get heat to supply the waste. To keep our bodies warm, we must either put on warmer non-conducting clothing, to retain the heat of the system, or we must consume and digest more food (fuel) and breathe more air into the blood, to produce more internal heat to supply the waste.

If a horse is covered with a warm blanket to prevent the heat escaping from the surface, he will require less food to keep up the supply within, than if left uncovered in the cold air. If he is put in a warm stable he will need to eat much less food than if in an open stable, or in one where are open cracks, and drafts of cold air through doors, open spaces in the floors, partitions, and ceilings. Stop up the cracks, and close up the needless openings, and you will find your money in it when you have extra hay and oats to sell or buy towards Spring.

Cattle, sheep, and other animals, left out in the cold, *must* have much more food (fuel) than if kept in warm close stables. They will eat less on the lee side of a building or shed, than if exposed to currents of air that carry off the heat of the body rapidly. *The less the food required by any animal to keep up the internal warmth, the more will there be stowed away in the form of increased fat and flesh, which is so much profit.* Sheep kept at a haystack in a bleak field, will eat more (at the cost of the owner) but they will not grow more. The rapid internal fire required to sustain a life heat, weakens the system, as is too frequently shown by running noses, and weakened bodies, in or before Spring.

Hogs kept in a warm pen with a good bed of straw, instead of in a cold pen, will use up less food for fuel, and store away much more fat, from the same number of bushels of corn. In one case they may be kept at a loss, and in the other pay a fair profit. The same reasoning applies to all animals—the human animal not excepted. Give all animals a warm habitation, or shield them from cold, and you will save food that would otherwise be required to keep up the animal heat. On the understanding and application of so simple a principle, often depends the success or failure of many—of most men.

Tim Bunker on Cattle Disease.

"Guess she's got the cattle disease, by the looks on her," said Uncle Jotham Sparrowgrass, as he looked into Jake Frink's yard last April, at one of the sorriest cows ever seen in Hookertown. She was down and unable to get up, had lost her calf, and was very much down in the mouth.

"What kind of disease is that?" asked Jake, solemnly, evidently prepared to hear the worst.

"Cattle disease! you fool," exclaimed Ben Jones. "She is one of the cattle, and, of course, if anything ails her, she's got the cattle disease."

"I rather think it's the crow ail," suggested George Washington Tucker, as he joined his neighbors in the cow yard, to sympathize with Jake in his affliction. "At any rate, the crows will have a meeting on her case fore long, see if they don't."

"Dreadful cavin in for'ard of the hips," remarked Seth Twigg, as he scratched a Lucifer on the wall, and lit his second pipe. "I shouldn't wonder if it was the *cave*, a disease they've had in Hookertown this twenty year."

"It looks to me like the cattle disease they are having up in Massachusetts. The eyes are glassy, the hair stands on end, and the breathing is fast," remarked Dea. Smith.

"They call it the pleuro-pneumonia, I believe,"

added Mr. Spooner, who reads agricultural papers as well as theology.

"Has it killed many cattle?" asked Jake with a troubled countenance.

"It has taken off a good many hundreds, and is spreading into this State, said the pastor.

"Then she's got it," said Jake, "and I shall lose her in spite of all doctorin. Salt wont save her."

"The crows will, though," said Wash. Tucker, who clung to the crow ail, as the only theory that cleared up the mysteries of her case.

"I guess she's got the slink-fever," suggested Kier Frink, who had stopped his coal cart, to see what the trouble was. "They have had it a good deal on father's farm ever since I can remember. Cows lose their calves, grow thin with a cough, and die."

"Now jest tell us, neighbor Frink, what that are cow has been fed on, for I don't want to feed mine the same way," said Seth Twigg.

"Well, she haint been fed high at all. She aint pizened with oil meal, or any of them feed-in stuffs they bring up from the city. You see, I'm rather short on't for fodder and stable room, and I kept the ole cow on butts and swale hay all the fore part of Winter, and foddered her at the stack. She'd allers wintered out well enuf, and I thought she was so tuff, she wouldn't mind it. I put her on to oat straw about the middle of the Winter, and have kept her in the yard ever since, but nussin don't seem to agree with the ole critter. She allers was kontrary, blame her. Guess she'll die jest eout of spite."

"Rather high feed," suggested Twigg, looking across that pile of skin and bones at me, as if I was authority in the matter.

"Now," said I, "the difficulty with this cow is starvation and exposure. If I was here sitting upon a *crowner's* quest, I should find under oath, that this animal died of hunger and cruelty, administered by Jacob Frink, of Hookertown."

This conversation of my neighbors last Spring, shows the secret of a great deal of the disease among cattle in all the northern states. I have no doubt that they had something a little extra up in Massachusetts, perhaps an imported disease, that was wisely checked by stringent legislation in that and other states. The stock interest is so great in this country, that we can not well be too vigilant in guarding it. But I think starvation and exposure kill more cattle every year, than the lung murrain did. This disease is around in almost every neighborhood, and thousands are slain by it, and other thousands are so damaged, that they are of little or no profit to their owners. It is not thought contagious, and yet it is wonderful, how it goes through a whole herd, and spreads from farm to farm. Yet nobody is alarmed, because he is familiar with the disease, and knows the remedy is of easy application.

Now, Mr. Editor, I want to have my say on this subject, and you mustn't put the stopper on till I have it out. You see, now is the time to prevent this disease. If you neglect cattle till they get down in the yard, like Jake Frink's cow, it is too late, or if it isn't too late, it will cost all they are worth to get them up into good flesh again. You see folks are greatly mistaken about what constitutes the value of an ox or cow. I take it, it isn't the breath of life in the carcass that makes a cow or ox worth having. But this seems to be the popular notion, that a cow is a cow, whether she have five hundred pounds of good wholesome flesh between her skin and bones, or the skin and bones have

come together pretty much like a collapsed steam boiler. Men calling themselves farmers, and living in a farming community like Hookertown, seem to think that a poor half-starved cow in the Spring is in just as good condition to give milk, and make butter and cheese, as one well fed. They think all the hay and meal they can cheat their cattle out of in the Winter, is so much clear gain. They keep animals out of doors, at the stack-yard, through all this cold stormy weather, that are expected to bring calves next April. They lie upon the frozen earth, and often upon the snow, with the thermometer at zero or below. They are fed upon corn stalks, and often upon poor hay, without meal or roots. Now I am not particularly savage in my disposition, but I should like to have these improvident stock owners spend just one night, at the stack yard, with their poor shivering cattle. I rather guess they would build barns or sheds, and make them comfortable.

A cow kept in this way, comes out in the Spring in poor flesh, too weak to bear a good calf, or to make good veal, if the calf is doomed for the butcher. Half the Summer is spent in recovering the flesh she has lost during Winter. A few years of such treatment weakens her vital force so that she is liable to die a hardening, long before she becomes an old cow. Is it any wonder that cattle become diseased under such treatment, that the ribs stick out, and the hair sticks up, and the crows scent their prey? We have got laws that fine men heavily for abusing dumb animals with the whip. We ought to have others that will prevent them from torturing their animals with frost and hunger.

My remedy for cattle disease is first, good warm stables. They can be made tight, and at the same time be well ventilated, so that the thermometer will not sink much below the freezing point. Without good stables, no amount of feeding can keep the animal comfortable, or make it profitable to the owner.

And secondly, good feed, and plenty of it, good timothy or clover hay well cured—corn meal, oat meal, linseed oil cake meal, or cotton seed meal, with the roots—carrots, beets, and turnips—are articles that should enter into the bill of fare. As a rule, the more a cow eats, the more profitable she is to her owner. You might as well think of having meal when you don't put corn into the hopper, as milk and butter without plenty of fodder. There is nothing like having a good lot of flesh and fat to start upon in the Spring, if you want to make a good dairy, and keep your cattle clear of disease.

Yours to command,

TIMOTHY BUNKER ESQ.

Hookertown, Dec., 1860.

Rats Afraid of Powder.

H. H. Ballard, Owen Co., Ky., writes to the *American Agriculturist* that with 4 lb. of gunpowder he can keep every rat from his premises for a year. "The powder is not used to drive a bullet or shot through the animals, but is simply burned in small quantities, say a teaspoonful in a place, along their usual paths, and at the holes where they come out, with proper precautions to prevent accidents from fire." He says he has proved its efficacy by repeated trials. The rat has a keen sense of smell, and if he has sense enough to know that he is not wanted, when he perceives the odor of the burnt powder, the remedy will be of great value. Let our readers experiment and report, if the value of this method can be ratified.



AMERICAN FARM SCENES—WINTER—FROM AN ORIGINAL SKETCH BY F. O. C. DARLEY.
(Engraved for the American Agriculturist.)

It is with great pleasure that we present, herewith, one of four original "Farm Scenes," by our distinguished countryman, F. O. C. Darley, who ranks foremost among American Artists. The other three designs, representing *Spring*, *Summer*, and *Autumn*, will appear in the *American Agriculturist* for April, July, and October.* Our sketches, though necessarily on a reduced scale, give a very good idea of the spirit of the originals, which certainly excel anything of the kind hitherto produced in this country. The designs are truthful, as they well may be, for Mr. Darley, though devoted to his favorite art, is himself a New-Jersey farmer, and a close observer of farm life. The picture is worthy of study, and it scarce needs a line to direct attention to the natural position of the cows, the relish with which they lay hold of the corn-stalks, with appetite sharpened by cold; the eager, expectant look of the horse; the shivering shrug of the shoulders, by the boy; the "go-a-long" look of the man carrying the stalks; the peering of the cat; the fowl, snowbird, etc.

It is a matter of regret, that the picture is a truthful sketch of so many farm yards in this country. Winter, at the best, is a trying time for animals, cut off as they are from their natural food, and confined to dry hay, straw, stalks, or grain. The dictates of humanity alone should

be sufficient to impel every owner of stock to afford them warm shelter at least. But it is not alone for the animals' sake, that the importance of their comfort is so often urged in these columns. Who does not know that comfort promotes thrift? No man ever grew fat without being at ease, in his physical condition. Neither will an animal take on flesh, while he is worried by want of what his nature craves. The philosophy of the saving of food, by keeping animals warm, is fully considered in another article in the present number; but it is apparent upon the least reflection, that the *feeling of comfort*, has much to do with promoting an animal's thrift, in addition to the physiological reasons previously alluded to. The condition of the nervous as well as of the muscular system, affects the digestion and assimilation of food; and any one who has experienced the thorough discomfort of insufficient warmth, knows that every organ complains of the neglect. * Let those who would rejoice in the well rounded frames and sleek sides of their cattle, see that they live at their ease, as far as is possible in this inclement season. If our sketch leads to reflection and better practice, it will be not only effective as an esthetic work, but point a moral as well.

How to Throw an Ox.

L. Hendrick, in the *Genesee Farmer*, thus describes a simple method practiced by him on one occasion when he wished to extract hedgehog quills from the animal's hind foot: The ox was first placed on smooth ground, and

the left, or near side, fore foot tied fast to the leg above the knee. Then a rope was tied around the angle of both the off side feet, and two men standing on the near side, pulled gently on these ropes, at the same time crowding against his side. A man was stationed at the off side of the animal's neck, to attend to his head while coming down. The ox seeming to fear a fall, readily dropped on his knees and down upon his side. The ropes were then held securely, and the quills easily extracted with a bullet-mold for nippers.

Why do Animals need Salt?

Prof. Jas. E. Johnston, of Scotland, says: "Upwards of half the saline matter of the blood (57 per cent,) consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the healthy body becomes sufficiently obvious. The bile also contains soda (one of the ingredients of salt,) as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt therefore, and neither will the bile be able properly to assist digestion, nor the cartilages to be built up again as fast as they naturally waste."

It is better to place salt where stock can have free access to it, than to give it occasionally in large quantities. They will help themselves to what they need if allowed to do so at pleasure; otherwise, when they become "salt hungry" they may take more than is wholesome.

*N. B.—These copies are reduced for engraving, from the original sketches, by special permission from the owner of the copy-right, Mr. M. Knedler, 772 Broadway, of this City, who has published large sized, and very beautiful lithographs, 15x19 inches. These will make an appropriate ornament for every dwelling in the country. The price of the four is only \$5. They can be obtained of Mr. Knedler, as above, or we will procure copies and forward, when desired.

Jonathan on Pure Water for Stock.

To the Editor of the American Agriculturist.

I was much pleased with Tim Bunker's article on bad water in the last number of your paper. It was rather calculated to turn the stomach of a decent man to find what some people are drinking, but it will do good if it turns their thoughts in that direction, and leads to a doctoring of the soil surrounding their wells. It will save a good deal of doctoring of themselves, for nature punishes the stomach pretty severely for want of cleanliness.

I hope, however, my brother farmers will think a little further of this matter, and carry it out in their care of stock. I've seen cattle obliged to get their drink for a whole season from ponds and swamp holes that a man couldn't come near without turning up his nose—in fact I sometimes fancied that the bulls did make up wry faces at it; but they must drink that or nothing, and so they sucked down the nauseous decoction of rotting vegetables, surface drainage, droppings from the herd, and living animalcules which abound in such places. What kind of milk will such stuff produce? I don't believe any animal's stomach is a good enough laboratory to compound wholesome meat with only foul water to soak the food in; for it was not made for such a purpose. If any one doubts it, let him offer a thirsty ox his choice between clear water and swamp drainings, and the sensible brute will give him a practical lesson in physiology.

I notice in the English papers that the large milk dairymen are using filters to cleanse all the water given to their cows, and they say the better health of the animals, and the improved quality of the milk, more than pays the expense. I know that there is less trouble from foul water at this season, than in Summer, but how many yards there are, where the whole stock is watered from a single small trough, into which water is poured or pumped from a well. Every horse or ox washes his nose and mouth in it, the hens roost upon the edge and leave their filth, and this goes on day after day, and no man would think it clean enough for his own use. Then it is not clean enough for his animals, and he should at once provide better for them, both for their comfort and his own profit. If a running stream from a spring can not be had, let the trough be well cleansed every day. Brutes prefer cleanliness; permit them to indulge so good a taste.

JONATHAN.

Keep up the Farmers' Club.

You have such a club, of course, in your neighborhood. You can't afford to sleep away the Winter in mental indolence, regardless of the progress others are making, and which you might make in your calling. You have too much benevolence, also, to be willing to hoard up whatever useful things you have learned from reading and observation: you desire others to share these advantages with you. And then, you are socially inclined, perhaps, and wish to freshen up your acquaintance with gentlemen in all the region around. It is a very little matter, to be sure, to meet occasionally with friends, shake hands, smile, and say a few common-place words: yes, a little thing in itself, but it is a very good thing, and it makes both parties happier and better. By reason of such a little thing, the next day's work will be done easier, next day's burdens will be borne more cheerfully, next day's skies will be brighter.

God evidently designs that our happiness shall be fed from numerous small streams, not from a few large ones. Let us keep all the gates open, and open new ones beside.

Well, we are glad you have a Club established. If you have a Constitution and a few By-Laws to keep things in order, the next most important thing is regular and punctual attendance at the meetings. The interest of the Club will flag at once, if the members grow remiss here. It will not answer to leave the interest to depend on the fidelity of a few members: each man should stand in his lot, and never be absent, except from absolute necessity.

A subject should be chosen at one meeting for discussion at the next, and one or two persons appointed to open the discussion. All the members should read and think upon the subject previous to the debate, so as to have something to say, and so as to enjoy the meeting all the more. If the one appointed to open the discussion feels unable to speak extemporaneously, let him write out his thoughts, in his own way, and read them. But it is better, we think, to throw off all restraint and embarrassment, to make no attempt at fine speaking, but to express one's thoughts in a dignified conversational way. And let this be the character of the whole meeting: freedom of speech, governed by the laws of propriety and courtesy.

The most interesting part of the Club we attend, is the time (half an hour,) given at the opening of the meeting for questions and answers on all sorts of subjects. The President, sitting in his chair, is catechised about poultry, pigs, potatoes, wheat, and what not. When he gets tired of responding, or wishes to call out others well qualified, he requests A., B., and C., to answer the questions. Thus, every body has a chance to state his case, and almost every voice is heard in question or reply.

Jack Frost in the Cellar!

Look out for the burglar! He will do no harm to silver or gold, but he will heave your house from its foundations, crack your walls, throw windows and doors out of gear, and do sad work with the apples, winter pears, potatoes, and other good things laid up for the season's use. So, guard against him betimes.

If your cellar walls are old and poor, it may be well to bank them up with tan-bark or saw-dust, eighteen inches or two feet thick. Don't use manure from the stables, as is sometimes done—a most untidy thing! Good soil is suitable, if saw-dust or bark can not be had. If there are cracks between the top of your cellar wall and the sills, get a mason to come and point them up on the inside with mortar: or, what is better, lay a course of bricks, well bedded in mortar, over against the cracks. This will keep out Jack and the rats and mice.

If frost gets in at the windows, put in double sash. Instead of using two sets of windows, you may have double panes of glass, an eighth of an inch apart, set in each window-frame. By either method you get a body of confined air between the cellar and the frosty air without; and this is as good a protection as a wall of brick or stone. If you can't go to this expense, then lay a bundle or two of straw against your cellar windows, on the outside, confining them there by boards or stakes. This will darken your cellar, but darkness is better than frost.

DOGS ARE COSTLY.—According to the Ohio Cultivator 41,979 sheep were killed, and 27,750

were injured by dogs in Ohio, during the year 1859. The damage amounted to \$101,895. How many dogs will it take to benefit the State to the amount of \$101,895?

What's the Use of Snow?

So inquires the Broadway exquisite, as, one of these blustering mornings, he picks his way along the street in patent leathers. What in the world is it good for? And such inquiries are made, now and then, by almost everybody. There are many pleasant things connected with the revolution of the seasons; and yet, when rude Winter's turn comes, we can hardly meet it without feelings of regret. The invalid and the aged, how the cold pinches them! The tourist finds little pleasure amid fine scenery, if meanwhile he is frost-bitten. The landscape-painter must fold up his sketches with benumbed fingers, and hurry to his warm studio in town; the botanist—where are the flowers he loved so well?—the geologist, entomologist, and indeed the student in almost every department of natural science finds his sphere of observation reduced to narrow bounds; the gardener must stop his pleasant labors, and the farmer can no longer sow and reap, and gather into barns, but must witness for many months an exhausting drain upon his stores without any replenishing streams.

Now for the bright side of the picture, if we can find it. The old proverb that "snow is the poor man's manure," has, perhaps, a grain of truth in it. Some chemists tell us that analysis reveals a larger percentage of ammonia in snow than in rain. One says that "water acquires nitrous salts in freezing." However that may be, this at least is true, that snow is a powerful absorbent, purifying the air and returning those impurities to the soil.

Melt in a clean vessel a mass of snow which has lain a short time on the ground, and the taste will detect foreign substances in the water. This will be most manifest in the neighborhood of large towns. The harshness and dryness produced in the mouth by drinking snow-water, and the unpleasant effects on the skin by washing in it, are ascribed to the impurities it contains. The disease called *goitre*, causing monstrous swelling of the neck, which prevails in Alpine regions, is also attributed by some to the use of snow water. The absorbent power of snow has been illustrated thus: "Take a lump of snow (crust answers well,) of three or four inches in length, and hold it in the flame of a lamp: not a drop of water will fall from the snow, but the water as fast as formed will be drawn up into the snow by capillary attraction. It is by virtue of this power that it purifies the atmosphere by absorbing and retaining its noxious and noisome gases and odors."

Furthermore; it prevents exhalations from the earth, and having absorbed them, returns their fertilizing properties to the soil. Hence, marshes and stagnant pools become inodorous in Winter, and the unwholesome effluvia of vegetable matter everywhere decaying while unfrozen, is retained, and with the melting of the snow in Spring, is taken up by the soil. Now, if no more than this can be made out for "the poor man's manure," it is yet better than some of the patent fertilizers of our day.

Snow helps the springs and mill-streams in Winter. Were the ground naked from Fall to Spring, and frozen meanwhile several feet deep, the springs would give out, and water-wheels of all sorts would have to stand still. As it is,

however, the snow prevents the frost from penetrating to a great depth—especially in the wooded hills, which are the fountain-heads of springs and streams—and by gradual melting keeps up a supply of water for man and beast.

Snow is an excellent protector of tender vegetation. Even in northern latitudes, there is a multitude of half-tender indigenous plants which require more or less covering in Winter. Nature provides for them most wisely. She hangs over them the branches of neighboring trees and bushes, gathers about their roots a many-folded blanket of dry leaves, and, last of all, spreads over them a fleecy mantle of snow. With this covering, they pass through the severest Winter safely; while, if they were transplanted to exposed situations, they would die at once. But besides, our gardens and fields are stocked with plants and grains which are the natives of warmer climates, and need protection still more. Sweep off the snow from our wheat fields and meadows, and at least a portion of the crop would be winter-killed. Some of the choicest herbaceous plants in our gardens, brought from milder regions, will pass unhurt through our severest Winters, if only covered with snow.

So also of many tender shrubs. With their branches fastened to the ground so as to be covered by snow, they hibernate in Canada about as well as at the tropics. We have seen the English Yew, several feet high, come out in Spring well browned above the snow-line, while all below was as green as emerald. The Japan Quince, by no means a tender shrub, the Deutzias, many of the Spiræas, Forsythia viridissima, the Scarlet-flowering Currants, etc., frequently lose their flower buds, if not their branches above the snow, while all underneath is unharmed. The buds of peach-trees are often killed in severe Winters, but if a few branches happen to get bent under the snow, they produce a splendid show of fruit. Scientific travelers in Siberia have recorded instances in which, with the temperature of the air over the snow at 72° below zero, that underneath was 29° above zero, showing a difference of 100°. Dr. Kane, in his "Arctic Expedition," mentions finding under the snow, at latitude 78°, "the andromeda in full flower, and saxifrages and corices green under the dried tufts of last year." * * "Here, too, were the cilene and cerathrium, as well as the characteristic flower-growths of later Summer. The poppy and sorrel, were already recognizable." * * "Few of us at home," he continues, "can realize the protecting value of this warm coverlet of snow. No eider-down in the cradle of an infant is tucked in more kindly than the sleeping dress of Winter about this feeble flower-life."

When the snow falls early in Winter and remains until Spring, the ground is seldom frozen at all. And if it becomes frozen a few inches deep before the snow falls, the heat of the sub-soil thaws out the frost above it, and the superincumbent snow prevents another freezing, so that in Spring the ground is soft and ready for the plow and spade many days sooner than if it had remained exposed to the full force of Winter.

The aid which the snow renders the farmer in clearing up swamps, and getting out muck in Winter, and in hauling lumber and wood to market; the peculiar brilliancy of the snowy landscape lighted up by the sun; the sport of sliding down hill for the boys, and of sleigh-riding for children of larger growth, are considerations not to be omitted in numbering up the uses of snow. But of these and other things we have not time or space now to speak.

A Pomological Puzzle.



There was recently exhibited in a show window in this City a narrow necked bottle containing a large sized pear, a drawing of which is here given. It attracted much attention and 'how it was got in there' puzzled most spectators as much as the apple dumpling did King George—the monarch is said to have thought the presence of the apple in the enclosing crust, nothing less than witch-work. The explanation of the pear "puzzle" is quite easy. After the fruit had fairly set, the bottle was slipped over the pear, and properly secured to the branches, so that the wind should not disturb the specimen. The glass covering rather stimulated than retarded the growth, and ultimately the pear nearly filled the bottle.

Other fruits as apples, grapes, etc., also vegetables, melons, and whatever may please the fancy, can be treated in like manner. Where a grape vine is trained upon a tree, a bunch of grapes and a pear or other fruit could thus be bottled together.

After the fruit is ripe and separated from the branch, it may be preserved for years by filling the bottle with diluted alcohol, or even common whiskey. The process is of no great practical value, but will furnish a pleasing ornamental curiosity.

Items from the Holy Land.

In a very excellent book lately published, entitled "The Land of the Book," we find several things of interest to agriculturists. We notice, for example, (vol. I, p. 524,) that the mildew now prevails in that Land, which is the birth-place of the olive and the vine. The author says: "I have heard it said that the blight, which has nearly destroyed the grapes all over the country for the last few years, and which has ruined the vineyards through the south of Europe, has also attacked the olives this year * * * The olive dries up without developing, and falls off; but there is none of that whitish mould, nor that offensive smell of corruption which the grape-blight occasions. The vineyards in this region are utterly ruined, and the people have cut them down and sowed the land with grain. This great calamity acts very mysteriously. The vines blossom and the young grapes set as usual, but, soon after, a silvery gray mould spreads over them, and as they enlarge, they corrupt, and with a very peculiar and offensive odor. There is this, also, strange about it: one year it attacks the vines raised on poles and running on trees, while those lying on the ground escape; the next year it is the reverse. Some vineyards exposed to the winds are wholly destroyed; others sheltered from them are uninjured. And again this is reversed. Hitherto, no explanation has appeared to account for the calamity itself or for its eccentricities."

Here is another item from the 2d vol. p. 232. The writer is traveling near Mt. Carmel, and says: The pastures on either side are extremely rich, and when I passed along this river bank in February, it was all glowing and blushing with an infinite number and variety of flowers, send-

ing up incense to the skies, and offering their honeyed cups to millions of bees. I saw here a flower altogether new to me: the stem resembled a strong, rank pea but the flowers hung in pendant clusters like hops. The upper part was a light bronze color dashed with purple, the rest pure white. I could get no name for it."

A most remarkable flower, we should say, judging from the description; and we should advise our enterprising nurserymen to send for it through their foreign agents. We put down our name in advance, for one specimen.

A Dish of Apples—Good Sorts.

Yes, Betsey, bring up a dish of good apples: some neighbors have happened in, this evening, and what can be better to set before them.

The man was right in what he said to Betsey; nothing is better to an unperverted taste than a tender, juicy, mild and spicy apple. It refreshes one's spirits, gratifies the appetite, quenches thirst, and furnishes healthy food. There was something more than a joke in the advice of Dr. Johnson to one of his friends: "If possible," said he, "have a good orchard. I know a clergyman of small income, who brought up a family very respectably, which he chiefly fed on apple-dumplings!" Few things will do more to promote the health of a family, than to furnish them daily and for the year through, with a plenty of good ripe apples. They may be eaten both cooked and uncooked. They promote good digestion, and carry off many humors which would otherwise accumulate in the system, to its serious injury. Was it not some happy experience of the healthfulness of apples, that led certain of the ancients to imagine that this fruit possessed the power of conferring immortality, and "was watched over by the goddess Idreia, and kept for the special dessert of the gods who felt themselves growing old?" But we have no special faith in heathen fables. We prefer to dwell upon visions of baked apples, fried apples, apple-butter, apple-pie, apple-sauce, apple-tarts, and apple-jelly.

The value of fruit as food for stock, is too well known to need enlarging upon. Here is a single sentence from the Transactions of the N. Y. State Agricultural Society, which covers nearly the whole ground: "Aside from its edible uses to man, the apple is an important and economical food for most kinds of farm stock. Milch cows thrive upon it, when fed in moderate quantities, and it adds to the quantity and quality of their milk. It is also an excellent food in making beef. Horses eat it readily: for them it is a succulent and healthy food. Sheep, swine, and geese, will fatten altogether on good apples; and for all kinds of poultry they are nutritious food."

Not the least important consideration is the value of the apple as a market fruit. It usually commands a ready sale, and is more easily raised than perhaps any other crop. A farmer can not make a wiser investment than to devote a portion of his land to an orchard. Let him choose the most suitable soil and exposure, and select the best varieties. Good apples cost no more to raise, than poor worthless wildlings.

To aid the inexperienced in making up a list of unimpeachably good varieties, we insert an assortment of those which are admitted by general consent to rank among the very best in quality; we give ten sorts for each season:

SUMMER APPLES.

Red Astrachan, Sweet Bough, Early Harvest,

Early Strawberry, Early Joe, William's Favorite, American Summer Pearmain, Bohannon, Golden Sweeting, Sops of Wine.

FALL APPLES.

Autumn Strawberry, Fall Pippin, Gravenstein, Porter, Smoke House, Jersey Sweeting, President, Hawley, Lowell, Rambo.

WINTER APPLES.

Baldwin, Hubbardston Nonsuch, Northern Spy, Newtown Pippin, Peck's Pleasant, Rhode Island Greening, Esopus Spitzenberg, Dominic, King, Norton's Melon, Danver's Winter Sweet, Red Canada, Roxbury Russet, Swaar, Wagener.

How to Judge of Fruits.

It is quite amusing to observe the different estimates formed of newly introduced varieties of fruit. A man raises a seedling pear, which, in his own partial judgment, seems very good. He shows it confidentially to a friend or two, who, in the kindness of their hearts, pronounce it first rate, delicious! The man's eyes open wide; he imagines he has produced a new Seckel or Virgalieu; a fortune may be made out of its sale; he names it "Excelsior," "Young America," or something else more sounding and taking. Then he propagates it largely and introduces it to the market. What is his surprise to find that his bantling produces no great sensation; the public call it second-rate, inferior to many others now in cultivation, and not worthy of general notice. The man feels hurt—hurt in his feelings and in that tenderer place, the pocket. He insists upon it that the fruit committees are prejudiced, are hostile, and determined to ruin him. It takes a long time for him to find out that he has been deluded by his own feelings and self-interest. Such cases are quite common.

Mistakes arise also from the time and circumstances in which an opinion is formed. A person may be called upon to test the quality of a new fruit, when his appetite has just been sated and cloyed by eating many other fine sorts; of course, he would not be likely to form a very favorable estimate, nor one to be relied on.

Or the trial may be made when he is exceedingly fruit hungry: he has been traveling all day, has had little to eat or drink, and is feverish with heat and ravenous for food. Now bring on your new candidate for pomological honors—be it apple, pear, grape, or anything in the fruit line—and forthwith, it is pronounced "fine," "super-excellent," "food fit for the gods!" What do you think of that judgment? Not much we hope.

We have heard of a wild grape being found many years ago, by a party of explorers in the Rocky Mountains, which they esteemed so wondrous good—better than the Hamburgs or Muscadines—that they afterward procured a root, carried it many weary miles by hand, and brought it to an eastern city for cultivation. Oh, how disappointed were they to find on its coming into bearing again, that it was no better than the commonest wild grapes of New-England woods! Ah, if they had brought home also their sharp appetites from the Rocky Mountains, the grape would also have maintained its original excellence.

We need not enumerate other circumstances that come in to mar one's judgment of new fruits. It is plain, however, that the owner of a seedling is apt to be a poor judge of it, and that time and circumstances must also be taken into the account. One trial is not enough, nor is one year's

trial. Some standard fruit should always be at hand with which to compare the new-comer. And with the best of pains, it will take time and necessitate some blunders, perhaps, before the new fruit has its true and final place assigned it.

The Newer Grapes.

Our friends, the new natives, could hardly have received a stronger impulse than they got from the early frosts of last Autumn. The early ripening Delaware, Concord, Hartford Prolific, and Logan, had ripened off their crops finely by the first week in October. But the laggard Isabellas and Catawbas colored very slowly, and, north of Newburg at least, were only half ripe when the heavy frosts of mid-October came, and froze them for two successive nights as hard as bullets. Alas! of what use were they then! They were so sour and bitter as to be unfit for eating: and were consequently unsuitable for wine making, or for jellies, or sauce. Some persons tried them for pies, but they were eaten only from a sense of duty, nobody at the table asking for a second piece!

We happen to know several persons who have vowed destruction on their late ripening grapes, and have determined to fill their places with the earlier sorts. Not wisely so, we think; for, with proper choice of aspect and soil, and with suitable pruning, the Isabella, at least, can be ripened, three years out of four, as far north as Albany; and when it *does* mature, a noble grape it is. A daily paper before us mentions that even the Concord was caught ungathered, last Fall, in the vineyard of Mr. Bull, its originator, and some forty or fifty bushels frozen and spoiled. Shall we therefore throw away our Concord? Prove all things, and hold fast to that which is good.

Frozen Plants.

If this Winter is like all that have preceded it in our day, many plants and vegetables will be frozen. Some still, clear night, Jack Frost will steal into the cellar, and turn the apples and potatoes into so many stones. He will also find his way into the lady's parlor or chamber, where she keeps her house-plants, and, ah me! next morning, her sweet pets will be as rigid as the artificial flowers on her bonnet. The bundle of trees which I ordered so late, from ——— & Co.'s nursery, will be detained on the way, and I shall receive them all frozen together, as hard as logs.

Now, what shall be done in these several cases? Shall the potatoes and apples be drenched with warm water to take out the frost? No: cover them with old mats or carpets, and let them thaw out as gradually as possible. And the dear flowers? Don't hurry them into a warm room to thaw them by the side of a stove, as you would a frost-bitten chicken. Let them remain where they were frozen; close the window shutters or drop the curtains, so as to make the room quite dark, then sprinkle the plants with cold water direct from the cistern, and wait for the result. Do not allow the room to become warmer than 35° for twenty-four hours. If a few drops of spirits of camphor are thrown into the dish of water before sprinkling, it will be all the better. We treated a dozen plants in this way last Winter, and the frost was so severe that the water froze in drops on the leaves as we sprinkled them; but by keeping the room dark and cool an entire day, nearly every plant

came out unharmed. We remember, in particular, a fuchsia which was in full flower at the time of the freezing; a week after it was still covered with blooms. A neighboring gardener had the misfortune, also, to have a large lot of geraniums frozen. In his anxiety, he hurried a part into a warm green-house, and a part into a cellar. The first were nearly all ruined, the latter were all saved.

The package of frozen trees must be taken to the garden, a trench dug large and deep enough to receive them root and branch, and then they should be covered with soil. The gradual thawing in the dark will undoubtedly save them.

Look to Your Dahlias, etc.

Some persons pack away their dahlias in the Fall, in sand or dry earth. With such treatment, they generally go through the Winter very well. Others put them away on shelves in their cellars, or pack them among their potatoes. Managed in this latter way, they sometimes keep well; but they are exposed to injury from mold, if the cellar be damp, and to shriveling if it be very dry, and this is often the case where the house is warmed by a furnace. We have often found that by being packed among other vegetables, they remain just moist enough and just dry enough.

However they may be stored, it is well to examine the tubers occasionally, to see how they are getting on. If they are suffering from either cause named above, let them be shifted into different quarters before they are spoiled. They are worth this little trouble.

And we will just add that Mexican Lilies, and gladioli should have corresponding treatment. Some persons take up their Japan Lilies, and pot them for the Winter. With suitable protection out of doors, this is unnecessary; but where it is done, they should have a little water occasionally, between this time and April. Give them just enough to keep them from drying up in their pots, and yet not enough to excite them into premature growth.

Chinese Chrysanthemums.

It is not our purpose now, to speak of the mode of cultivating this plant—our past readers, at least, need no instruction on the subject—but we wish to give a list of the best sorts in our own collection, and which we can, from experience, recommend to our friends. Our plants have been in full bloom at a chamber window, from November 1st up to Christmas, and now have gone into their Winter quarters in the cellar. There they will hibernate, with no further care from us until next May, when new plants will be propagated from slips.

The longer we have grown this plant, the more do we like it: it is so accommodating, so easily managed, and gives such a wealth of flowers for so little pains. Every body ought to have a window full of chrysanthemums. Here are some of our favorites: Hendersonii, fine yellow, and quite early; Sacramento, orange yellow, with a red center, (distinct from Hendersonii); La France, white; La Gitana, blush pink, exceedingly beautiful; Lartay, lilac; Piquillo, crimson purple, dark; Louise Meiller, creamy white, fine; Brunette, red; Mignonette, rose colored; Nelly, blush white; Henriette Lebois, rosy purple; Sathaniel, rose colored; Nonsuch, very dark yellow; Autumn, bronze, peculiar; Grand Sultan, carmine maroon; Minimum omnium, pink, very small.

The Wilmer's Laura Pink.

The Pink family, in all its branches, is ever popular, and deservedly so. It requires no remarkable skill in its management, is very easily propagated, and flowers profusely. Many varieties are perfectly hardy, and those which are not entirely so, require but slight protection.

The variety mentioned above, is one of the best. It blooms freely in the open ground in Summer, and again in the parlor window in Winter: it always has a contribution ready for my daughter's bouquet, where its beauty and fragrance make it an ever welcome addition.

To propagate it, take layers and put them down in the usual way, in Summer; or use cuttings, setting them in warm, sandy soil. It is really a monthly pink. We advise our lady readers to put this on their list of desirable plants for next Summer; it is now widely disseminated, and may be had of leading florists.

Rustic Flower Baskets.

These contrivances are always pleasant to look upon, suiting the taste of the most refined and the least cultivated. They are sometimes



Fig. 1.

made in the form of a tripod, or of a four-legged pedestal, (Fig. 1.) with a basket on the top of it. This basket is often made of branches of grape-vine and rods of cedar: the cedar composing the frame, and the grape branches the lattice work. They will last many years, if kept under cover in

Winter to prevent their being weather-beaten.

Then, again, they are made in the style indicated by Fig. 2. A small tree which has died, is selected for the support: it is sawed off at any convenient height from the ground—say four feet—and a basket set on the top and fastened there by nails. This basket may be a simple box veneered with bark tacked on with small nails, or it may be a series of boxes of different sizes rising one above the other, as shown in the cut.

The second and third boxes from the bottom being each larger than the one above, may be filled with soil and set out with plants. A portion of these plants should be trailing sorts, such as the blue lobelia, verbenas, petunias, calystegias, periwinkles. We have met, somewhere in a horticultural paper, with another style of basket, which we sketch from memory. [See Fig. 3.] Here, we get our pedestal by cutting off a larger tree just above the crotch of the lower branches. It is necessary, of course, that the lower branches should not be higher than five or six feet. Into this crotch a large rustic basket is set, made in some one of the ways above mentioned.

These plans are not given as models to be implicitly copied, but rather as hints for others to improve upon. The originality of every gardener may be shown by his seizing on every available opportunity in his own grounds, and converting them into scenes of novelty and interest. For example, a friend of ours lost a fine tree in his lawn last year; but instead of digging it



Fig. 2.

up at once, he sawed it off within ten feet of the ground, set two large plants of English Ivy at the base, and trained them around the trunk until they reached the top and hung down in graceful festoons. Again, in the grounds of a certain College Park, there were a dozen unsightly stumps of Lombardy Poplar: a gentleman who had the care of the grounds, dug out holes a foot



Fig. 3.

wide and eighteen inches deep in the rotten center of each, filled them with earth, and set out therein such plants as the calystegia, clematis, American Ivy, etc. They grew well, and for several years have been objects of great interest. These plants will grow there until the stumps decay and disappear, which will be several years.

Our purpose in this article will have been answered, if any of our readers have been set on the track of some simple device for ornamenting their grounds, however limited they are.

IN DOOR WORK.

Elementary Instructions in Plain and Fancy Work—Crochet. . . . No. II.

BY MARIAN M. PULLAN.

Every one has heard during the last few years of *Crochet Work*, (pronounced Cro-shay). Many persons suppose that it is a new art. The name, a French one, is new, and is taken from the implement, a crochet or hook, with which it is done. But, in fact, it is very ancient, for it is doubtless the same work which used to be done by the shepherds when watching their sheep. We are told they wove their stockings and mittens by means of a rough wooden hook on the end of a stick, employing the coarse yarn spun by the women of their families. So, in this at least, there is nothing very new under the sun. Of all the various kinds of ornamental and useful work, crochet is the most easily learned, and one of the prettiest arts, when once acquired. The implements are simple; the stitches equally so: and the articles that can be made or ornamented by means of it, almost endless. In it, besides, there are no dropped stitches, or other difficulties of a like nature, as is the case in knitting; and if a mistake be made, it is easily remedied, which also, makes a great distinction between it and other fancy work, in which blunders are irreparable. In richness of effect, too, the finer kinds almost imitate the beauties of Old Point lace; it is impossible to say to what perfection crochet-work may yet be brought.

The process is that of first making a chain of a succession of loops, one drawn through another, and then working on those stitches, the thread

being drawn through a stitch of the previous row by means of a hook, or crochet needle.

The crochet needle is of bone, steel, or wood. It has a stem more or less long, and a hook at one end. Steel hooks are usually set into ivory or bone handles. However fine at the end, or hook part, they should increase in thickness toward the handle, or they are very difficult to work with. The hook should not be at all barbed like that for fishing, but simply notched, so that the material used will rest as a stitch in the hollow. Nor should the end be very sharp, for if sharp, it will inevitably cut into the fingers. For wool, which is the material generally used for winter work, a good hook may be made of any kind of wood that does not readily splinter. It should be about the thickness of a pen holder, and as long, with a knob at one end, to prevent the stitches from slipping off, and at the other end the hook. Make this by cutting a notch, one third the thickness of the stick, about a third of an inch from the end. Then gradually smooth away the wood above, to the depth of the notch, extending the slope back more than half an inch. After this, cut the end into a point, as little sharp as possible. Two or three of these hooks, large in size and length, make a good stock for wool work. The thickest should be a little thicker than an ordinary pencil, the finest the bulk of a thin pen-holder.

The simplest stitch in crochet, and the most useful for wool-work, is the one most recently invented, and called Princess, or Tunis stitch. It is this which we shall now describe to our readers, as plainly as we can in words.

One slip loop being made, and the hook inserted in it, hold the hook lightly between the thumb and fore finger of the right hand, with the barb not turned up or down, but even with the fingers and towards the person. The end of wool with the stitch just made, is kept between the finger and thumb of the left hand, close to the needle, and the thread to be worked, passing over the fore and middle finger, is held between the latter and the third. The middle and fore fingers being apart, the slightest movement of the left hand suffices to lay the thread over the hook, from behind it; when, if it be drawn back through the loop already on, a new loop is formed. These loops are called chain, or foundation stitches, and the great art is to

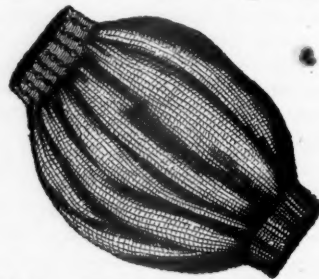


Fig 1.—UNDERSLEEVE WITHOUT THE CUFF.

make them even, and to work rapidly. As you progress, you still keep the thumb and fore finger of the left hand close to the needle, which rests parallel with the fore finger, above the right hand.

Now for *Princess stitch*. When you have made enough chain stitch, the last one being on the hook, insert it in the nearest chain stitch but one; put the thread over, and draw it through, making a loop. Do this with every successive stitch, until all of them are taken up.

Second row, working back, and taking off the stitches. Lay the thread over the hook, and draw it through one loop; but after the first, do

this, and draw it through *two* every time, until but one stitch is on the needle. This one stitch will of course make the first stitch of next row.

The third row is somewhat, but not exactly like the first. On looking at the row just done,



Fig. 2—UNDERSLEEVE COMPLETE.

you will see upright stitches on the near side, *not along the top*. Take up each of these in succession, until you have the full number on your needle again. Work the second and third rows alternately. To decrease in this stitch, you draw the thread through *two* instead of *one* at the end, or three instead of two in any other part of a row: but in the following row you put your hook through two upright loops instead of one.

We will now give directions for a very comfortable under-sleeve, for winter wear, the cuff of which is done in this stitch of crochet.

THE WOOLEN UNDER-SLEEVE.

The materials will be two ounces of single wool, and a few yards of another wool contrasting in color. Besides the crochet hook—a fine wooden one, and two bone knitting needles, also rather fine, will be wanted to work this undersleeve.

Begin with the band at the top. Cast on eight stitches, and knit, in the common way, a piece long enough to go round the arm, above the elbow. Cast off. Take up the stitches along one edge, and knit them, but before doing each one, bring the thread in front. Knit in the common way, which makes the thread pass over the needle each time, and so increases. The next and long succeeding alternate row must be purled, the stitch looking like the wrong side of a stocking. For this, bring the thread in front, and put the point of the needle in the stitch from the back to the front. Pass the thread round, and withdraw the needle backward, leaving the thread still in front, ready for the next stitch. Continue so to the end of the row. As you purl into a stitch every thread pulled over the needle, you get double the number you took up. After this, when you put the thread round in knitting or purling, do it twice instead of once, which makes a long stitch, as it is only knitted as one in the next row. This makes very loose soft knitting, and answers better than using coarse needles. As much should be done as will cover the arm from above the elbow to the wrist, where an elastic band is to be knitted, after knitting one row with two stitches together each time, to decrease the number to half.

The wristband.—Have a number you can divide by 4. Knit 2 stitches, purl 2, alternately. As knitted stitches seem purled on the wrong side, you take care in the alternate rows, to knit the stitches you purled in the intermediate, and purl those you knitted. Do a piece of two

inches deep thus; it will make the sleeve sit firmly as well as comfortably around the wrist.

The cuff, which is to be sewed on, is done in Princess stitch. Make a chain of 69. Tie a bit of colored thread in the center stitch to mark it. Work backward and forward, decreasing one on each side of the center stitch, until you have done 24 rows, when the cuff will be pointed in the middle. Then, with wool of another color, do one row, taking up all the stitches at the ends and outer edge, so as to have them all at once on the needle, increasing a little at the points. Work back as usual. Do another pair of rows with the original wool, and then a single line of common crochet, and so on until large enough.

Finish the sleeve by joining the cuff to the edge of the wristband by a line of crochet, holding the wristband stretched out that it may afterwards contract to fit the wrist, and sew up the sleeve, nearly as far as the ribbing.

Hints on Washing the Hands, etc.

Some "philosophy" is useful in even so simple a matter as washing the hands; if any one doubts it, let her with a microscope examine the surface to be cleansed by water, and she will be interested, and perhaps shocked at the discoveries made. Instead of a smooth surface of skin, presenting, when unwashed, a dingy appearance, there will be seen a rough, corrugated surface, with deep irregular furrows in which the foreign particles are deposited like earth among the rough paving stones of a street. If they lay loosely, it would be an easy matter to dislodge them with a little cold water; but the pores, the waste pipes of the body, are continually discharging into these open drains, perspiration and oil, which, by evaporation, become a cement to hold the particles of dust, etc., and to remove them, requires both chemical and mechanical action. Warm water softens this cement, expands the furrows, and makes the skin pliable, so that by rubbing, the soil is disturbed and partially removed. But chemistry must aid a little before the process is complete; and soap is added, the alkali of which unites with the oily matters, and the whole is then easily disposed of.

The wash cloth is useful, because its threads or fibers work down among the furrows, like so many little brooms, sweeping them out; hence it should be soft and pliable. Flannel is preferable to cotton for this purpose, and a sponge is the best of all. Rough coarse cloths are objectionable, as they abrade the skin and leave it rough and more easily filled with dust than before. Harsh, strongly alkaline soap should be avoided for the same reason; it abstracts all the oil from the upper layer of the skin, and makes it "chapped" or crack. Where a sponge is not obtainable, a very neat and serviceable wash-cloth may be knit of soft cotton twine; either with the crochet, or with coarse wooden needles; knitting back and forth, as garters are knit. A mitten knit of tidy cotton with the crochet needle, is very handy for this purpose, and makes a neat article for the wash stand. A wash rag will not be tolerated by a tidy housekeeper. If cloths are used, let them be neatly hemmed, and kept scrupulously clean. Applying a little vinegar and water to the hands or face, after the use of soap, and rinsing off the vinegar with clean water, is a capital process to prevent chapping or roughness. The acid neutralizes the alkali of the soap, and keeps it from destroying the skin. Try this frequently, especially on washing days. Diluted vinegar or other acid is excellent for the face after shaving.

Take Care of the Umbrellas.

There is, perhaps, no article more abused or less deserving it than the umbrella. By a bad custom it has been voted out of protection as property, every man being at liberty to help himself wherever he can find one—provided, of course, he be not above meanness. It bears the brunt of the storm, and is shriveled by the scorching sun; is counted a nuisance in the house while wet, and from neglect speedily falls a victim to hard usage. Hear a word in its behalf. After use in a storm, place it with the handle downward, in a stand with a tub or dish attached to catch the drip. If you have no such stand, nail together a shallow box of planed boards, with four uprights at the corners, and a few wires at proper distances passing around the uprights to form the frame. It will save many a puddle in the house, and many a storm from the neat housekeeper. If set with the handle upward, the water gathers around the joints at the top, rusts the wires, and this speedily rots the cloth. As soon as all the water has ceased to drip, the umbrella should be opened out, and set in an unoccupied room to dry. The observance of these precautions will prolong its usefulness at least one half.

Blinks from a Lantern...XXIV



IN SEARCH OF A FARMER'S WIFE.

I have been in search of a farmer for many months without finding any thing that answers exactly to my ideal of that article. I now purpose to turn the light of my lantern inside of the house, and search for a farmer's wife. I have already had glimpses of this personage in my journeyings, but the pretenders are quite as numerous as among the men.

Nothing is more common than to find discontent in the farmer's kitchen and parlor, where there happens to be a parlor to be occupied. This apartment is often found in the house, but in many cases it is visited as unfrequently as a grave yard. If it gets opened twice a year for airing and cleaning, it is very genteel doings. Madam mourns over her hard lot, thinks she works harder and sees less of the world than any mechanic's wife, and, in fact, is not much better off than the wife of the hired man who helps her husband on the farm. Bridget works all the while, and she is obliged to do no less. Bridget walks to meeting, while she rides, and that is about all the difference between them.

There has been a very great change in woman's condition since I dwelt in the flesh. The wife of the Greek peasant who tilled the soil, was little better than a slave, and the plainest log cabin, or dwelling of modern times, is a palace in comparison with her home. She not only had the drudgery of the household upon her, but very often the toll of the field also. There was no poetry in yoking a woman with an ass, and sending her forth to draw the plow and the cart. If I could but impart to some of the good housewives who complain of their

lot, a little of my experience and observation in the olden time, I am quite sure they would cease their murmuring. Between the Greek and the American woman, there is a long reach upward, that it is difficult for the present generation to comprehend, because they have no practical acquaintance with a different state of society. In this favored age and country, woman is no more doomed to the coarse rude toil of the fields, the companion of brutes. She is the wife and companion of man, generally of the man who appreciates her worth, and makes her the mistress of his home and of his affections. She is no more an unlettered drudge, with no thought beyond the present day and scene of her activity. She has had the advantages of the schools, and the world of letters with all its joys is open to her. There is more to quicken thought in a single newspaper that comes every day, or every week to her home, than all that a Greek woman read, or heard read, in her life time. She is linked by a thousand ties with the great world outside of her home, and feels that she is a part of society.

She has far more elevated hopes for herself and for her children. The schools are theirs, and the humblest mother upon the free acres of this favored land has as cheering prospects for her children, as the most favored. There is no barrier of caste for them to break through. She knows that a farmer's home has nurtured the proudest names upon the pages of the history of the country, and she may help to fill its future pages with the Washingtons and Franklins of a coming generation. No work can be drudgery, that prepares the way for the realization of her cherished hopes. She may toil early and late, but it is blessed toil. She will live again in the lives of her children.

No error is more common, I find, than to suppose that another's lot is more favored than our own. Mrs. Jones, the farmer's partner, envies Mrs. Smith, the wife of the merchant. She thinks it must be delightful to have a store of her own to run to, and have all the nice things without money and price. She has no butter and cheese to make, no milk to look after, no large family to cook for, and no such lot of clothes to wash every week. Mrs. Smith, on the other hand, envies Mrs. Jones her neat white farm house in the country, with ample front yards and orchards, and acres of green grass and Summer flowers, her inexhaustible patch of strawberries, and her sweet cream and irreplaceable butter, all without money and price. She does wish she could have such a range for her children. She will be so glad when her husband has made money enough to go into the country and live independently as a farmer.

Every man knows more of his own lot than of his neighbor's, and, of course, feels more its evils. But there is no perfect happiness of condition for mortals, and we shall err less, if we believe that our lot, whatever it may be, is more nearly perfect than our neighbor's. It is generally much better than we deserve, and probably the kindest lot that could have fallen to us, considering our characters. If we look at it rightly, there is much in it to be thankful for, and its burdens will grow lighter as we accept them, and make them our own.

In the single fact of independence which belongs pre-eminently to farm life, there is ample compensation for all its ills. The mechanic too often does not own his home. The merchant nine times out of ten fails in business and his splendor is short lived. The farmer's home, however humble, is his own, and all the broad acres

are the possession of his family for life, unless they choose to alienate them. I was much happier in my tub, than Alexander in his palace, for the king and his home belonged to the nation, though he, unhappy monarch, labored under the delusion, his life long, that the Greeks belonged to him. The tub was mine, and all the sunshine that fell upon it; if in any way the sunshine got obstructed, it was easy to move my habitation to where light was plenty.

The first element of success in the life of a farmer's wife is, that she accept her lot as the kindest thing that could have been ordered for her, that she magnify her office, and make the most of it. If there be in her a willing mind, she will find in her position and in her routine of duties, enough to develop her womanhood, ample opportunity for her to make the most of herself as a wife and mother, and as a woman. It is something to fill these offices well, and to minister to the daily happiness and comfort of a household. As a means of livelihood this business is as respectable, and as good in its influence upon the mind and heart, as any other. Cooking is a philosophic art, and she knows much, who learns to do it well. The making of butter and cheese requires tact and skill, and contributes something to the well being of society. It is more than the gift of a cup of water, which has its reward. These and kindred arts of the good housewife contribute to the thrift and prosperity of the farmer. They help make a substantial and comfortable livelihood which is the material basis out of which grow all domestic virtues and graces. She who would shine as something more than a farmer's wife or dairy maid, should first shine in these capacities. Shining milk pans, pails, and cheese tubs, a neat kitchen and table, the clean bright faces of happy children are good omens for brilliancy in other quarters. So thinketh Diogenes.

A Good Chicken Pie.

This, if well made, is one of the most acceptable of "chicken fixings." A correspondent sends the following directions, to the *American Agriculturist*. Joint the chicken, thoroughly cleanse all the parts, and boil the pieces in just sufficient water until tender. Take them out, and add to the liquor, butter, pepper and salt to the liking; some also put in wine and additional spices. Line the sides of a deep dish with ordinary paste or pie crust, lay in the chicken, pour over it the liquor, and distribute about the dish a dozen balls the size of a walnut made of butter and flour worked together. Cover with paste, pinch it well together about the edges, but leave an opening in the center for the steam to escape. The top crust may be ornamented according to the fancy. Bake in a quick oven until the crust is well done.

For the *American Agriculturist*.

Boned Turkey.

This noble bird, the pride of American tables, can not easily be recognised after undergoing the culinary process termed "boning," but for a cold relish nothing more acceptable need be sought. It is a favorite dish at evening parties. It may be thus prepared: Boil a Turkey in as little water as may be, until the bones can be easily separated from the meat. Remove all the skin; cut the meat in thin slices, mixing together the light and dark parts. Season with salt and pepper. Take the liquid in which the turkey was boiled, having kept it warm, pour it

on the meat, and mix well. Shape it like a loaf of bread, wrap it in cloth and press with a heavy weight for a few hours. When served up it is cut in thin slices.

More Good Puddings.

DELICIOUS PUDDING.—Contributed to the *American Agriculturist*, and rightly named as we have proved. Bake common sponge cake in a flat bottomed pudding dish. (Several may be prepared at one time, as they are quite as good when a few days old, and very dry.) When desired for use, cut it into sixths or eighths, split each piece, butter them, and return them to their places in the dish. Make a custard with four eggs to one quart of milk, season and sweeten to the taste, and pour it over the cake. Bake half an hour. The cake will swell and fill the custard.

COTTAGE PUDDING.—Contributed to the *Agriculturist* by a lady friend—we can endorse it from trial. Stir well together, 1 pint of flour, 1 teaspoonful of butter, 2 eggs, 1 teaspoonful soda, 2 teaspoonfuls cream tartar, and 1 teacupful of sweet milk. Put in a deep pan, and bake half an hour. Serve up with sauce made to the taste.

WHEAT FLOUR PUDDING.—Very nice. For baking, use 1 qt. milk, 9 eggs, 9 table spoonfuls of flour, and 1 teaspoonful of salt. For boiling, 1 qt. flour, 1 qt. milk, 5 eggs, 1 teaspoonful of salt.

A Plate of Cakes.

Contributed to the *Agriculturist* by modest subscribers who withhold their names.

NEW YEAR'S CAKE.—Stir together 1½ lbs. white sugar and ¼ lb. of butter. Dissolve a small teaspoonful of pearl ash in 1 pint of milk and add to the butter and sugar. Stir in 3 lbs. flour and 2 tablespoonfuls of caraway seeds. Roll about half an inch thick, cut in small cakes, and bake in a quick oven. These are good says one of the editors who has proved them.

GINGER SNAPS.—Rub together 1 cup of butter (or half butter and half lard,) and one of sugar, adding a little flour. Mix this with 2 cups of molasses in which a teaspoonful of soda has been well stirred. Add 1 cup of water, and spice to the taste, beating the whole very thoroughly; after which work in flour enough to make them mold easily. Roll thin, cut small, and bake in a quick oven.

JUMBLES WITHOUT EGGS.—2 cups sugar, 1 of butter, 1 of milk and water, 1 teaspoonful essence lemon, 1 do. cream tartar, ½ do. soda.

A Batch of Pies.

A good "housekeeper" in Middletown, Ct., contributes the following items to the *Agriculturist*:

CRACKER MINCE PIE.—For four pies of common size, break five large crackers into a pint of warm water; add 1½ cups of butter, ½ cup molasses, ½ cup vinegar, ½ cup chopped raisins, 2 cups sugar, with cinnamon, cloves, and salt to your taste. [Rather a rich pie for a weak stomach!]

CREAM PIES.—Take one quart of thick cream and stir in one well beaten egg, dusting in flour if the cream be not too thick. Sweeten to your liking, flavoring with lemon juice. If the cream is very thick, the egg can be omitted. [A "glorious" rich pie, this, for those who have the cream. (People in this City and Brooklyn, will find Borden's Condensed milk an excellent substitute for cream.) A custard pie with milk and eggs, with a little flour dusted in, which is usually a good addition, we be-

lieve, is never bad to take; but whose mouth would not water at the sight of a pie made of pure cream instead of milk? When our nice butter is not worth 25 to 28 or 30 cents a pound, we shall go in for the cream pie.—Ed.]

Household Matters in Store.

About twenty five more good items have been contributed for this department, and we will leave more room for them in the next number. We hope our house-keeping readers will continue to supply a good stock of original materials. We expect to publish at least one hundred good household articles this year, or one for each penny paid for the *Agriculturist*. We shall also have something to say about the science of cooking, that will, we trust, be of practical utility.

BOYS & GIRLS' COLUMNS.

The Editor with his Young Readers.

A HAPPY NEW-YEAR,

Yes, many a one, to all our old friends among the girls and boys, and to the thousands of new ones that have just entered the *Agriculturist* family. We once gave this salutation to a youngster on New-Year's day, and he rather took us aback for a moment, by enquiring "What are you going to give me to make me happy?" You may think that rather impolite, as it was, but it carried a good lesson with it. At the beginning of the year every body is ready with the customary greeting; the children are up bright and early to "catch" father and mother, and their companions, by calling out first, "I wish you a happy New-Year." If a stranger from the moon or some other planet should visit Earth on that day, he would think, "what a loving people," but we fear if he should happen in at some houses the following week, he might say, "what a set of hypocrites; they were just wishing that all might be happy, but they are doing nothing to give enjoyment to any one—each is looking out only for himself." How would it be at your house? "But, Mr. Editor," you may say, "suppose you take a little of your own preaching, and let us know what you are doing to bring about your wish of a happy New-Year to us all."

We think our old friends among you will be satisfied of our good intentions, as we point to the boys' and girls' columns of the past year, and reply, "We have plenty more left of the same kind; new stories, new pictures, new puzzles, and, best of all, new zeal; for we grow to love the children's part of the paper more and more; and our new acquaintances will, we feel confident, not regret the day when father or mother subscribed for the *Agriculturist*."

A TRICK THAT DID NOT PAY.

Many years ago, before friction matches were invented, few persons had seen phosphorus, and it was sometimes used to terrify the ignorant, by making luminous writing with it upon the walls of darkened rooms, and for playing various tricks. A young girl who had seen such performances, procured a small quantity, and while on a visit to her friends, resolved on having some sport with it. There were some half a dozen girls together, and upon retiring, after the light was extinguished, she placed a bit of phosphorus in the palm of each hand, and commenced her exhibition, by waving her hands about, showing two bright spots in motion, to the great astonishment of the rest. Presently she clapped her hands together to heighten the effect, when the phosphorus took fire, which caused her to scream with pain, and to wildly throw her hands about to extinguish the fire. Her companions supposing it a part of the performance, applauded highly, and it was not until some of the family, alarmed by the noise, came in to her relief, that her distress was discovered. She was severely

burned, and never again meddled with so dangerous a plaything—you may add the moral.

Uncle John's Study....II.

By Raleigh Truman.

MR. EDITOR.—It would have pleased you, I think, to see Uncle John's surprise when I handed him the last number of the *Agriculturist*. We were seated in the study for a good time, as usual, and Susie was just about to ask him how the man got so many feathers from the hat, when I took the paper from my pocket. He glanced over the pictures, then turned to the Boys' and Girls' Department, and almost immediately exclaimed, "Well done Raleigh; but I must be careful what I say, you're such a faithful reporter." I thanked him for the compliment, and told him that as he could now talk to a hundred thousand or more girls and boys, I hoped it would increase his pleasure in talking, a hundred thousand fold." At this moment cousin Grace burst into the study without even knocking—she is usually very polite—clapped her hands, and fairly danced with glee. "Oh, said she, it was so funny! she was so nicely taken in!" Why, what's the matter, Grace," said we all. "The old cat was fooled by her own eyes," replied she. "My pet mocking bird sat singing in his cage, which stood near the window. The window was closed, and a strange cat, which had been prowling about our yard, spied him, and thought what a fine breakfast he would make. She crept along the fence very slyly, until quite near the window, and then with a spring pounced upon the cage, as she thought, but her head came bang against the glass, breaking it to splinters. She fell upon the floor with a me-yow, gave such a frightened look, and darted away again through the broken window, and over the fence, before I could say 'scat.'" We enjoyed pussy's discomfiture very much, for Grace's bird is a great favorite. Fred facetiously remarked that she deserved the pane in her head.

"Now about the feathers, Uncle John," said Susie, "for I can't get them out of my head."

The eyes of the spectators were deceived," replied he, "I have seen the same trick, and Fred will remember that during its performance, the man went behind a table several times; as he passed, he exchanged the hat he held, for another filled with feathers. He did it quickly, and at the same time managed to divert the attention of the audience by talking about some other subject. I have seen a man appear to swallow a sword two feet long, and perform many other impossible things. Some curious appearances are produced by contrivances made for the purpose. I have just received from Germany a toy invented there, which I shall name the "magic box," by which very remarkable and beautiful things are shown."

He opened his book-case and brought out a small green paper box, nearly round, having an opening at the top and bottom. "Now," said he, "I will put some money into it, and shake it up, and you will find the box will arrange it all in the most complete order. He rattled the coin for a moment, and then placed it under the box on the table. "Oh, isn't that nice?" said Susie, "just look; eight ten-cent pieces, a little ways apart, all in a circle." There they were, we were certain, until Uncle John lifted the box, and we saw but one coin. "Where are the rest?" exclaimed we. "That is all," said Uncle John. This was hard to believe, but we could, by this time, trust Uncle John's word better than even our own eyes. "Now for another wonder. Susie, can you draw?" "No, sir," replied she. "Well, scribble some marks upon paper, no matter how they look, and we'll place them under the box." So she made a few pencil marks, which looked something like a brush heap badly tangled. The box was placed over them, and there appeared a regular and beautiful figure, such as is used for ornamental bordering in printing and engraving. We were greatly astonished, and still more so, when, by slightly moving the box over the marks, another handsome design was shown, and so on for five minutes or more, each figure being new and beautiful.

"A magic box, indeed!" cried Fred, "Would'nt it

be splendid to have such a contrivance for my desk at school, where my books are always playing hide and seek; it would straighten them at once."

"Will it untangle a skein of silk?" asked Susie. Uncle John smiled and said, "we'll try it; here's a snarl of thread that will answer for the experiment." The box was placed over the thread, and though it was not straightened out exactly, there was presented the most curious arrangement; as if some one had knitted a pattern of the most regular and exquisite design. "Wonderful," we all exclaimed. Do, Uncle John, show us the inside of the box, and tell us how it is made.

[The Editor is very sorry to have no room for the rest of Raleigh's report. We have procured a "magic" box, and find it a new and wonderful thing, and yet easily made. Look out for engravings and a full description next month.—Ed.]

NEW PROBLEMS FOR VOLUME 20.

No. 1.—*Enigma*, by a friend of the children, over 80 years old; forwarded by Milton Deming.

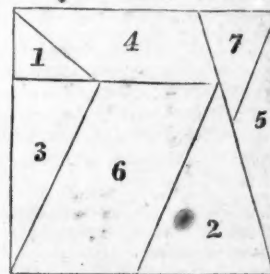
My native place was in the wood,
And mother earth my only food;
I then had life, but now am dead;
No longer by kind mother fed.
Transmogrified I now appear,
A thing of use, though looking queer;
My head is covered, not with hair—
My tail stands upright in the air.
I have a thousand useful wings,
Good housewives all admire these things.
I settle women's worst disputes;
For them I fight both men and brutes.
When desolation was foretold,
The Prophets mention me of old.

No. 2.—*Illustrated Rebus* contains a true statement.



ANSWERS TO PROBLEMS.

No. 30. *Figure Puzzle*.—(See cut in December No.)
Answer.—The pieces are properly arranged thus:



No. 31. *Enigmatical Story*.—Answer—"Christmas and New-Year Holidays." By numbering each of the letters of these words from 1 up to 27, all the words in the story are easily made out.

Correct answers received to Dec. 7th, and not previously acknowledged: Wm. L. Raymond, No. 29; Jas. M. Graybill, 29; A. S. Kirkmore, 29; Katie M. Humphrey, 29; Mary M. Halladay, 29; C. J. Page, 29; Jarvis H. Arnold, 29; J. R. McBarney, 29; Franklin Adams, 29; John H. Dony, 29; (thanks for your efforts to obtain subscribers); John W. Gibson, 29; Carrie and Sallie Thomas, 29; M. M. Mahlon, 29; E. B. P., and S. L. P., 29; Robert M. Haebrone, Jr., 29; Joseph T. Mason, 29; J. P. Yoder, 29; Matthew P. Sellers, 29; J. H. Corman, 29; C. H. H., 29; Amos M. Peck, 29; J. O. Hatch, 29; M. J. Old, 29; Joseph P. Moss, 29; George W. Moffit, 29; Cornelia C. Cunningham, 31; Helen A. Holmes, 31; Haller H. Bayley, 31; Emma J. Taylor, 31; Jarvis H. Arnold, 31; Minnie St. Clair, 31; Mary E. Bishop, 31; Mary W. Shepard, 31; M. H., 30; (thanks for the new puzzle, it may do at some time); Jas. H. Gamble, 31; (enigma accepted with thanks); "Young America," 30, 31; Bella R. Frick, 30, 31; Charles J. Ladd, 31; H. H. Wiltner, 30, 31; W. W. Knight, 30, 31; W. H. Miller, 30; Charles L. Siewers, 30, 31; "Glen Cove," 30, 31; M. E. Hendricks, 31; Lodella L. Powers, 30, 31; James Stewart, 31.



PORTRAITS OF "SHAVEHEAD" AND HIS "LADY."
(Drawn from Life by A. O. MOORE, for the American Agriculturist.)

"It takes all kinds of people to make up an assortment." The accompanying engravings illustrate the adage. The following interesting account of the queer looking couple above, and the odd manner of Indian baby-tending, was prepared for the *Agriculturist* Boys and Girls by our friend, and theirs, A. O. MOORE, Esq., who spent several months in traveling through California and Central America.

THE "DIGGER" INDIANS OF CALIFORNIA.

Indian stories you have all read or heard—of their battles with the whites who first settled this country; for the war whoop, the tomahawk, and the scalping-knife, which once terrified the children of our now peaceful land, have been sounded and flourished again in books, before our imaginations, until little boys look wishfully at their father's rifle and powder-horn, thinking how they would defend their home if Black Hawk or Tecumseh, or some such hideous painted fellow should attack it; and little girls throw their arms around the baby and declare that they would themselves die before the red-skins should kill the little darling. Now it is very natural for us to feel thus; but did you ever think how the little Indian children feel about the white enemies who have driven them from their homes and killed their fathers, yes, and sometimes their mothers too? I must confess that I was mentally taking the part of the poor ignorant savages against my own countrymen, as, one bright Spring like day of a California Winter, I was walking in the city of San Francisco. I had been informed that five hundred captive Indians had been brought to the city on their way to what their white captors had decided should be their future home in Mendocino county, and was on my way to their encampment. I soon reached the shore of the bay. Crowds of citizens, attracted by curiosity, surrounded the enclosure, which was merely a line of ropes guarded by soldiers. Within, were the miserable creatures who had been caught like wild beasts. When first brought to the city, they were nearly naked, and suffered much from the cold, but the kind-hearted ladies of the city had sent them cast-off garments and blankets, until nearly every Indian man, woman, and child, had some article of civilized dress, of

which they seemed quite proud. There were men with ladies' worsted hoods; squaws with gentlemen's hats and overcoats; boys and girls wearing coats whose skirts dragged on the ground, and searching in vain for their lost hands in the great sleeves, laughing heartily at each other's droll appearance or tumbling over one another in the scam-



"DIGGER" INDIAN WOMAN AND CHILD.

ble for apples which the crowd threw to them. These were the "Digger" Indians of California, so called by the white settlers, because when seen

among their native hills, they are generally engaged in digging for roots, which form their principal food at some seasons. They also eat wild berries, and consider the Grasshopper or Locust, which is sometimes so great a scourge to the farmers of the Pacific coast, a great delicacy—eating them raw or roasted, as may be convenient. Though they are considered the most degraded of all the inhabitants of the North American continent, and in early times seemed too cowardly to attack a white man except when he was entirely alone, yet latterly they have become better armed and more exasperated by the whites, and are now formidable foes. Cattle stealing and murdering small parties of emigrants passing through their country, have been their principal "feats of war" however.

Not being satisfied with my position as an outsider, I slipped away from my companions, and with sketch book in hand, I passed under one of the ropes of the enclosure. I was soon hailed, however, by the guard, and politely informed that he could not admit me. Pointing to my book, I replied, that I wished to take sketches of some of the Indians; he hesitated, and then said, "well, there's the General, ask him." The General led me at once to some of the chiefs who were huddled round a fire built upon the ground. These seemed quite pleased when told that I wanted to draw their portrait, and taking their pipes from their mouths, sat up very straight and tried to look very grand. This I thought spoiled them for a picture, though I went on drawing. While at work with my pencil, a sentinel looking over my shoulder said, "Have you got Shavehead yet?" "Sir," said I, looking around, unable to guess what he meant. "Have you taken old Shavehead's picture?" "Who is he," I asked. "He's the biggest rascal of them all—that's him sitting over yonder. We had an awful time getting him, he fought like a grizzly, even after the boys had broken his arm with a rifle ball." This was enough to convince me that "Shavehead" was a good subject, and I bowed respectfully to the chiefs whom I had been sketching, and was soon seated before him. He seemed about 25 or 30 years old, rather slender, but with a strongly marked, resolute face. Unlike the other Indians, he remained sulky, and scarcely looked at me once. He was seated on the ground, holding out toward the fire his broken right arm which was bandaged and confined in splints.

"This is Shavehead's wife," said the sentinel, bringing forward a young woman who was really quite good looking. "His wife?" I asked, "Yes, one of 'em," and he bade her sit by her husband. She smiled and sat down, seeming well pleased to be "taken," but her husband cast many a sidelong scowl at her, which might have threatened a "curtain lecture." He even refused the piece of money I offered at the close of the sitting, but his "Lady" smilingly accepted his, as well as her own piece.

In the group around the fire, were a number of women with their children. These seemed the saddest of all the captives, and bent over the cradles in which were their dark, but none the less dear, infants, in silent but manifest sorrow. It is the old way to a mother's heart, to notice her child, and

a gleam of sunshine broke over her dark features as I placed my camp stool before one of them, and by signs told her I wished to sketch her papoose. She

untied the outer covering of the cradle so as to give me a better view of the contents.

A glance at the engraving will show you that an Indian cradle is but little like those in which we have rocked our baby brothers and sisters to sleep. Outside was a basket-like case, made of the inside bark of trees and willow twigs. When the edges are drawn together over the child, and tied with leather strings, an opening is left just over the child's face, which can be covered by the round lid, as seen in the engraving, thrown back behind the cradle. This lid serves to keep off insects, etc., when the child is asleep or is swinging suspended from the limb of a tree.

The inside case is of softer material, apparently of dried grass, and within this is whatever of cotton or woolen cloths the mother can obtain.

There is a strap of leather which passes around the cradle, and, when traveling, fastens it to the back of the mother. To us, who seem to have hard work to keep babies still, even by jumping and trotting them until our arms and knees ache, it is a matter of wonder how the Indian baby with hands and feet bandaged straight and stiff, can be so submissive. I rather think there would be a fearful revolution up stairs if my baby was put into one of those cradles! But these Indian babies probably do not know their own rights, and so are very quiet and contented.



Into which are thrown all sorts of paragraphs—such as NOTES and REPLIES to CORRESPONDENTS, with Useful or interesting Extracts from their Letters, &c., &c.—to be drawn from whenever we have room left here.

Five Hundred More Basket Items Wanted.—We shall try to make room for at least 500 items in this department, during the present volume. So, send along the queries, useful items of information, etc., etc. We have many on hand, but shall soon use them up, when our present heavy "business season" is over. The "Basket" alone shall be worth many times the cost of the volume. The rest of the paper we'll "throw in."

Those Cream Pies—Erratum.—One of our Male Editors rashly intermeddled with the directions for cream pies on page 22 of this number (already printed), and as might be expected, he got it wrong; it should read "flavor with lemon peel," not juice.

Water for Stock.—A subscriber asks whether fattening cattle fed on roots and hay, should have water, or be kept close in their stalls. Give them all they desire to drink. Thirst is nature's call for a necessary element in the body. Fattening animals particularly, need plenty of water, to aid in eliminating the nutriment being added to the system.

Water from Springs.—A. M. Gates, jr., New-Haven Co., Conn. If a spring be properly enclosed, the water will rise to the level of its source, and can be conveyed away by pipes. We cannot judge of its feasibility on your premises, without examination of the locality; from the description, we judge the plan might succeed.

"Grub Worms" Destructive.—Geo. F. Connor, Hamilton Co., Ind., writes that his corn crop has been almost destroyed for two years past, by a worm or grub which attacks the roots of this and other grains, usually during May, and continues to work until nothing green remains. He describes it as 1½ inches long when full grown, the body white, and the head black. He inquires for a remedy. Plowing late in the Fall will expose many to the Winter frosts, and so destroy them. Perhaps some of our readers have succeeded in extirpating them from their own grounds. If so will they please communicate how it was done.

Distinguishing Quince Stocks.—J. S. Graham, Calaveras Co., Cal. It is not easy to describe the varieties of quince so that one can tell a particular sort by its growth. The Angers is the best stock for working the pear upon. It is propagated by cuttings and layers, is stronger and of more upright growth than the common.

Better Peaches.—George W. Murphy, Alleghany

Co., Pa., referring to the "good peaches" described in last October No., page 313, says they were excelled by the yield obtained by a neighbor, Mr. McClosky. Out of twenty five, none measured less than 7½ inches in circumference; the largest was 11½ inches and weighed 8½ ounces. They were probably Crawford's late.

Grapes for the North.—W. B. Hazard, Addison Co., Vt. The Delaware grape is superior to the Rebecca in flavor, and more hardy. It will doubtless succeed in your latitude, but the Concord should be your main reliance. It is doubtful whether Anna, Elsinburgh, Allen's Hybrid, Clara and Cassady will prove hardy so far north.

Texas Wild Grapes.—J. B. Elliott, Austin Co., Texas. The grapes you forwarded were too far gone upon arriving here to admit an opinion of their quality.

Inducing Fruit Bearing.—"An Old Subscriber" writes, "I have tried with most gratifying success a method of promoting fertility in trees, which was first suggested to me in the *Agriculturist*. I have a large Bartlett pear tree which has persisted year by year in making a most rampant growth, but which refused to do its duty in the more important matter of fruit bearing. In July last year, I took a stout cord and bound it as tightly as possible, three or four times around the trunk of the tree, and left it there until November. The result is that this year my tree had about three hundred large, fine-looking pears upon it, so loading it down that I had to prop up several of the branches to prevent their breaking. The tree at the same time has made a strong, healthy growth of about six inches."

Pin-Cushion Cactus.—Sent 2000 miles by mail.—Dec. 1st, we received from James Eubank of Circleville, Texas, a pretty Cactus, the head about the size of a hen's egg, and resembling, in form, a globular pin-cushion on a short standard. Mr. E. writes that: "It is found chiefly on dry stony points of land, and bears the most beautiful blossom I ever saw. By some it is called the Mountain Cactus, from its locality; while others call it the Pin-Cushion Cactus from its form." It was put up with a little ball of clay around the root, and rolled in paper; and though knocked about in the mail bags for two weeks, it now appears to be growing well in a pot of earth.

California Grass.—J. A. Wigginton, Boone Co., Mo. We cannot make out the variety from the specimen sent. It resembles the Italian Rye Grass, but coming from the Humboldt River, Cal., it is probably a native sort, and from your account, may be worth cultivating.

Egyptian Corn.—This humbug which was exposed in Vol. XIX, page 71, March No., is thus alluded to in the *Prairie Farmer*. "A most wonderful humbug... the man who got the people's money for it, should be compelled to swallow nothing but grains of this corn for a whole year."

Chinese Tree-Corn.—R. Martin, Washington Co., N. Y. Do not invest in this article—it is a humbug.

Manzanneta.—Mrs. E. Bowman, Cal., sends a twig with leaves of a very beautiful evergreen shrub known there by the above name. We should be pleased to receive a full description of the plant, and also to accept the seeds kindly offered.

Sketches of Flowers.—Miss. L. A. Matson, Orange Co., Vt., sends several very neat sketches of flowers and fruit, for which she will please accept our thanks. One or two of them may appear in our columns.

Draining a Garden.—B. R. Phelps, Jr., Scott Co., Iowa. The effect of draining, is to deepen the soil; to allow better facilities for the roots to descend for food; to get rid of superfluous moisture, and to introduce air which plants need. It will pay in clayey soils; every crop is benefited by it.

A Kansas Garden.—J. P. Cone, Atchison Co., Kansas, writes that there grew in a neighbor's garden, a beet weighing 10 lbs.; a radish of 11½ lbs.; a cucumber 19½ inches long and 8 inches around, and a winter crook-neck squash 3 feet in length. This, in ordinary seasons, would not be remarkable, but where a drouth has prevailed for the whole season, it gives promise that under favoring skies Kansas vegetation will be difficult to beat.

Cheap Lands in the Old States.—H. of Iowa. These lands may be found all along the lines of travel from Ohio to New-York, frequently advertised in the local papers, but always to be obtained on inquiry.

Mammoth Leghorn Squash.—C. M. Green, Broome Co., N. Y. The above squash when pure, is nearly round, flattened at the ends, what might be called rather oblate, of a creamy yellow color, and growing from 30 lbs., to 150 lbs. or more in weight. Though not equal to the Hubbard or Honolulu in flavor, it is good, and so very prolific as to be quite profitable.

Preparing Dried Grasses.—Jas. A. Graves, Waverly, N. Y. Collect the specimens when in flower, hold them for a few moments in hot steam, then spread them carefully between folds of blotting (not tissue) pa-

per to absorb the moisture. Lay weights upon them; leave them until pressed dry. They can then be made up into bouquets according to the fancy. Steaming them before pressing, aids in keeping them of the natural color.

Tall Corn, and a Great Deal of It.—A. B. Miller, of Marion Co., Iowa—a first-rate county to hail from—writes to the *American Agriculturist*, that a premium having been awarded in 1859 for about 80 bushels of corn per acre as the largest crop, several farmers made an effort to excel this in 1860. The result of the competition was, that Mr. B. Long, produced one hundred and seventy eight bushels per acre, on three contiguous acres. Several others raised from 100 to 122 bushels per acre. If there was no mistake in the measurement, "King Corn" must install Mr. Long, as Prime Minister. But, hold! Further on in the same letter, we read that Mr. Long's own son, under 14 years old, raised 94 bushels and 50 lbs., on half an acre, and carried off the premium of \$10 offered to the boy under 14, living in the county, who would raise the most corn on half an acre. This is at the rate of 189½ bushels per acre! That will do.

Gardener's Wages.—George Martin, Bath Co., Va. There is no reason why a man employed in the garden should not receive equal compensation with a farm laborer, provided the skill of each be the same. In this section the gardener is usually better paid than the man of all work upon the farm. The compensation should be governed by the amount of service required, and the skill necessary to perform it.

A Digging Match.—A subscriber at Niagara, N. Y., forwards for the *Agriculturist* an account of a friendly match at digging potatoes which came off in that neighborhood. James Black and John Gallagher, each dug one hundred bushels within four hours, using a common potato fork. The men were so nearly equal that the match was decided to be drawn.

Long Leaf Pine.—Seeds received from Ira T. Wyche, Halifax Co., N. C., which we shall have planted, to test them at the North.

Standing Cypress.—Wm. Hayes, Ulster Co., N. Y., sends a specimen of this beautiful plant, cultivated in his garden. He writes that the plant grows eight to nine feet high. We should be pleased to receive seed.

A Heavy Dog Tax.—A farmer in Ohio, writing to the *Steubenville Herald*, says that in one night he had 61 Spanish Merino Sheep killed and wounded by a dog. He estimates his loss as follows: 61 sheep at \$5—\$305; damage to balance of flock, \$25. Total, \$330. A pretty severe tax for one man to pay.

A California Farm.—According to the authority of the "California Cultivator" the great grain farm of Hutchinson & Green, of Yolo Co., Cal., contains 5,000 acres, 1,000 of which were in wheat the past season, 1,000 in barley, and 900 were mowed, the balance being in pasture. The wheat averaged 30 bushels, and the barley 40 bushels per acre. Of hay, 1,800 tons were cut and stacked. Among the stock was a herd of 100 milch cows, a cross of the native with the Durham.

Aged Horses.—Mr. Damper, a farmer near London, Eng., is said to have in his possession a horse 56 years old, which he rides daily about his farm, and occasionally on a hunting excursion. It might be well to gather a few facts respecting the age to which horses live in this country. We invite those knowing horses over 40 years old (without mistake) to send us a note of them.

Insects from Illinois.—Wm. H. J., Platt Co., Ill. The insects upon the wheat stalks sent to this office are the Hessian Fly, in the chrysalis state. When very abundant they are quite destructive to the crop. A full description of the insect, with engravings, was given in Vol. XVIII, page 240, (August No., 1859.) If, on examination by a competent person, they should be found numerous enough to greatly impair the yield, it might be advisable in the Spring to turn the wheat under and plant to corn or sow with oats.

Carrot Culture.—J. B. S., Waterloo, Doon, C. W. writes, that last year he raised from three-fourths of an acre, 700 bushels of White Belgian Carrots. The land was enriched with well-rotted barn-yard manure, and plowed deeply in the Fall, turned over again in Spring, and sowed on the 5th of May. A neighbor of his manured with bone dust and leached ashes, and the yield was quite small. He says the carrots grew well until they reached the manure, and then branched off in every direction. (It is quite likely they "touched bottom" on a thin soil, and were obliged to spread, or stop growing. Draining or subsoiling the field might remedy the difficulty.—Ed.)

Poison Ivy—Rhus Radicans. (R. Toxicodendron of Gray.)—J. Jenks, Wright Co., Minnesota. The specimen you sent, proves to be the above. Some persons can hardly even pass it without being poisoned, while others handle it with impunity. Probably the humor you allude to was caused by eating the leaves. The writer of

this, frequently ate the leaves when a boy, without perceptible injury, being told it would prevent poison. He would not risk it again. Salt water, or water from a blacksmith's forge is often recommended to relieve the irritation. Apply it to the parts affected, with a sponge.

Mr. Rarey, who has made the title of "horse tamer" honorable, has returned from Europe, bringing abundant fruits of his successful tour. In a conversation with him recently, we were pleased to learn that he intends giving public exhibitions of his skill in this City, and perhaps at other prominent points.

Grape and Hedge Books.—H. C. P., Erie Co., O. Chorlton's Grape Growers' Guide, 60c, and Warder's Hedges and Evergreens, \$1, are good works on their respective subjects. We can send them by mail upon receipt of price.

Seventeen Year Locusts in the Nursery.—E. Williams, Essex Co., N. J., brings us twigs of young pear, peach and plum trees, to show that the locusts damaged his nursery, notwithstanding the assertion often made that they do no injury. The twigs are punctured to the heart for almost their entire length, rendering amputation necessary. The piercings are too numerous to "facilitate the formation of fruit-buds." These remind us of fresh-punctured twigs brought in by Mr. Clew, of Hyde Park, N. Y., during the prevalence of the locusts in the Summer. They appeared very much as if a charge of small shot had been fired into them diagonally.

Potatoes and Manure.—F. W. Morgan, Albany Co., N. Y., writes that in a field planted with potatoes last year, a quantity of manure was left on the surface where the heaps had laid, and in these spots where the potatoes grew in the manure, with no earth in contact with them, they were almost free from rot. In other parts of the field, where the manure was spread and harrowed in, nearly half the potatoes were decayed. He asks why this was so. It may be the soil was too wet for a healthy growth; but there is too little known of the potato disease to decide on this or any other case with certainty. Such facts are useful, however, and aid toward a discovery of a remedy.

Portfolio Paper File is the name given by the inventor to a very convenient arrangement for preserving papers, magazines, pamphlets, etc. In outward appearance it resembles an ordinary book cover. The papers are held in place by two cords which are passed through their backs by means of two steel pins. These pins are fastened to the cords, and after being thrust through the papers, are attached to an elastic strap on one of the covers, which keeps them stretched, and holds every thing firm. We have the article in use in our office, and find it very convenient. The prices are from 50 cents to one dollar, according to the size and finish.

American Herd-book.—Volume V.—This work, which is of great interest and value to every owner of Short-horns, is now in course of preparation. Every such person who has not already done so, should send at once to the editor, Lewis F. Allen, Black Rock, Erie County, N. Y., and obtain a circular, giving particulars in reference to the plan of the record, etc.

Pronouncing Bible.—An edition of the Bible, in which the proper names are divided and accented, so as to show the proper pronunciation. It is in large, clear type, and just what is wanted. Published by Carlton & Porter, New-York. Price, \$2 to \$4, according to style of binding. The purpose of the editors of this work is so good, that criticism is, in a measure, disarmed. Much pains has been taken in giving the appropriate accent to each proper name, and though in a few cases we question the pronunciation given, yet we think this edition could be used with profit in most of the pulpits as well as families of our land.

Old Mackinaw; or the "Fortress of the Lakes and its surroundings."—By Rev. Wm. P. Strickland. This is an interesting book containing many new and striking descriptions of Indian customs and arts; a graphic account of the introduction of Christianity among the tribes of the Northwest; and also agricultural statistics of the country bordering on the Lakes. Published by Carlton & Porter, New-York. Price \$1. Sent post-paid by mail on receipt of the price.

Guide to the Central Park.—A neat, well arranged little book, by Saxton, Barker & Co. Price 25c. This is a revised and enlarged edition of the former issue with additional illustrations. We will forward copies post-paid to subscribers on receipt of price.

Book on Mixing Paints Wanted.—Several persons have, from time to time, inquired for a good book on mixing and using paints. Some of the older Scientific Encyclopedias give considerable information, but we are not aware of any book on the topic adapted to modern practice. The science of painting has undergone great improvements within a few years.

Cosmopolitan Art Association.—We hesitated some time before admitting the lengthy announcement of this enterprise into our advertising columns—bearing in mind the doings of the old "Art Union;" but having examined with pleasure the presentation plate of this year, "Falstaff mustering his Recruits," and having received the assurances of considerate friends who have been subscribers in the past, that the engravings received have been satisfactory, as well as the mode of conducting the enterprise, we find no reason for refusing to give publicity to the Prospectus for 1861.

Volume XI of the New American Cyclopaedia, is now issued, and, like its predecessors, is a magnificent one. It comprises 788 large two-column pages, and extends down the alphabet from MACG to MOXA. There are 1621 topics treated, giving an average of nearly a full column to each—the more important, of course, receiving proportionate attention and space. The articles are well written, condensed, and yet give all the information the popular reader would desire. Taking this one volume as a sample, and it is like the rest, our readers can judge somewhat of the amount of information that will be contained in fifteen or sixteen such volumes. To have such a work always at hand to refer to, may be compared to living constantly surrounded by a vast concourse of learned men to whom one can at any moment resort for information on any and every topic. We earnestly desire to see the work in every family possible. Our premium offer (See B, p. 27) is enabling some to get it who might not otherwise be able to do so.

Bonner's Ledger.—We confess to an admiration for Bonner; his boldness and enterprise are qualities sure to win success in any pursuit. The vast circulation of the Ledger gives it an immense influence. It has now a larger corps of eminent men as contributors, than any other journal in the world, and we are glad to find that the proprietor is continually introducing into its pages a larger proportion of the writings of the first minds of the country, and diminishing the attention given to fiction which is rarely healthful to the mind. If this improvement goes on, Mr. Bonner may yet exert a mighty influence in elevating the morals as well as the literature of our country.

The Yale Agricultural Lectures.

The approaching course of Lectures and Discussions upon agriculture and kindred topics, commencing February 5th, and continuing daily through the month, is worthy the attention of cultivators throughout the land. We can think of nothing better calculated to awaken thought, stimulate progress, and impart practical information, than for a company of practical men to get together and spend several weeks in discussing the various points connected with soil culture. The convention at New-Haven, last Winter, though defective, perhaps, in some respects, as every new enterprise must necessarily be, was, on the whole, very satisfactory, and we hear of great activity in the efforts now being made to render the second convention, as far as possible, superior to the first. Among other preparations, there are to be illustrations of the subjects presented, including portraits of some of the finest animals in the country, etc., etc. The management of horses, a subject of much present interest, is to be illustrated by practical demonstrations upon living animals. This feature alone will be a decided attraction. We have not yet seen a full programme of the exercise or a list of the distinguished men who will be present and take part in the exercises, though we hear that among those who have positively engaged to be there, are; in fruit culture, Wilder, Parsons, and Grant; in Science, Siliman, Johnson, Dadd, etc.; in Agriculture, Quincy, Bartlett, French; in Stock, Morris, Howard, Dickinson, etc., etc.

We advise every young and middle-aged cultivator in the country, who can possibly do so, to arrange to spend February at New-Haven. The expense will not be large, as the cost of the enterprise is mainly borne by private subscription. A contribution of \$10 for the whole course, will be asked from each attendant, to meet incidental expenses. Board may be obtained at moderate cost. Full particulars on all these matters may be obtained by addressing Prof. Jno. A. Porter, at New-Haven, Conn.

Business Notices.

Eighty Cents a Line of space.

COUGHS.—The sudden changes of our climate are sources of PULMONARY, BRONCHIAL, and ASTHMATIC AFFECTIONS. Experience having proved that simple remedies often act speedily and certainly when taken in the early stages of the disease, recourse should at once be had to "Brown's Bronchial Troches," or Lozenges, let the Cold, Cough, or Irritation of the Throat be ever so slight, as by this precaution a more serious attack may be effectually warded off. PUBLIC SPEAKERS and SINGERS will find them effectual for clearing and strengthening the voice. See advertisement.

THE GREAT FAMILY PAPER.

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PROSPECTUS

OF

THE NEW-YORK LEDGER.

We intend to make the NEW-YORK LEDGER for 1861 superior to that of 1860, or of any other year in the past. Among our contributors will be the PRESIDENT OF THE UNITED STATES, EDWARD EVERETT, GEORGE BANCROFT, WILLIAM CULLEN BRYANT, JOHN G. SAXE, GEORGE P. MORRIS, N. P. WILLIS, GEORGE D. PRENTICE, THOMAS DUNN ENGLISH, SYLVANUS COBB, JR., EMERSON BENNETT, T. S. ARTHUR, P. HAMILTON MYERS, Col. WALTER B. DUNLAP, S. COMPTON SMITH, JOHN ESTEN COOKE, Mrs. SIGOURNEY, Mrs. SOUTHWORTH, FANNY FERN, ANNA CORA RITCHIE, ALICE CARY, MARY FORREST, MARI-ON HARLAND, Miss E. A. DUPUY, MARY STANLEY GIBSON, PHEBE CARY, and many Clergymen, Professors in Colleges, Statesmen, and other eminent writers residing in different parts of the Union.

Our corps of contributors for the coming year will be so large, and will embrace such a variety of eminent talent, that every department of literature will receive the particular attention of some one competent to do it ample and special justice. Whether it be popular romance, scientific essay, historical sketch, scholastic disquisition, spley paragraph, pathetic ballad, humorous poem, old-fashioned love story, timely editorial, or any other ingredient of popular and elevated journalism that is to be furnished, the LEDGER corps will be sufficient for the task. In fact, our contributors will send us, from week to week, much more matter than we can possibly use, so that we shall always have a fresh and superabundant supply, from which to select the VERY BEST. These facts, taken in connection with our largely increased means, facilities, and experience, warrant us, we think, in promising our readers a family paper for the year 1861 which will be more interesting and instructive, and in every respect more valuable even, than the LEDGER has been in the past.

As an indication of the popularity of the LEDGER, we need only state the simple fact, that its circulation is larger than that of any other TEN literary papers in the country. Its great success is owing to the fact that we secure the best writers in the country, and spare no expense in getting up the BEST FAMILY PAPER—a paper of high moral tone. The exalted reputation of its contributors, the practical and invariably pure and healthy character of all its articles, the care which is taken that not even one offensive word shall appear in its columns, and the superiority of its Tales and Sketches, have gained for the NEW-YORK LEDGER a position that no literary paper has ever before reached.

—ANNA CORA RITCHIE, of Richmond, Va., and Col. WALTER B. DUNLAP, the author of the popular "Forest Sketches," which were published in our columns some time since, will each begin a story in the LEDGER early in the new year. Mrs. SOUTHWORTH is also engaged upon a new tale.

—In the next number of the LEDGER we shall publish a very interesting article, written expressly for our columns, entitled, A DAY WITH LORD BYRON, from the pen of the Hon. GEORGE BANCROFT.

—It is with much satisfaction that we announce that Mr. EVERETT will continue his elegant and interesting contributions to the LEDGER during the next year.

As this is the season of the year when Postmasters and others are in the habit of forming clubs, we direct their particular attention to

OUR TERMS:

Single copies, \$2 per annum; two copies, \$3; four copies, \$6; eight copies, \$12. Postmasters and others who get up clubs, can afterward add single copies at \$1 50. The party who sends us \$12 for a club of eight copies (all sent at one time) will be entitled to a copy free for his trouble. Terms invariably in advance. No subscriptions taken for a less period than one year. Canada subscribers must send twenty-six cents in addition to the subscription, to pay the American postage, which is half a cent a copy on every paper. The notes of all specie-paying banks taken at par. When a draft or check can conveniently be sent, it will be preferred, as it will prevent the possibility of the loss of money by mail.

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PORTABLE, AND SET IN BRICK, ARE PRO-nounced by the most competent judges, to be the best in market, giving the largest amount of heat with the least fuel, owing to their being so constructed as to burn the gases and smoke, and with extensive radiating surface, arranged to warm the air rapidly to a soft Summer heat. Eight sizes, adapted to warming one or two rooms only, or a whole house, CHURCHES, ACADEMIES, PUBLIC HALLS, etc., etc. Send for book of description and testimonials from some of the most respected citizens of New-York and elsewhere.

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suits equally to wood or coal, burns the gases and smoke, sifts its ashes, has eight openings for boiling, BROILS WITHOUT BURNING OR SMELL OF SMOKE, and without interrupting boiling; OVENS unusually large, yet BAKING QUICKLY and well at the bottom; flues very deep and easily cleaned; water backs, if desired; CASTINGS EXTRA STRONG. Three sizes. A PREMIUM over all others, was awarded at the late NEW-JERSEY STATE FAIR.

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Besides this, there is a very convenient contrivance invented expressly for this stove, whereby the perfect combustion of the coal is secured, with great economy, and at the same time the impure air is drawn out of the room. FIRE MAY BE KEPT ALL WINTER WITHOUT GOING OUT.

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These great economizers of time and preservers of health, have won the highest premiums at the Fairs of the United States Agricultural Society, at the State Fairs of Maine, Vermont, Connecticut, New-York, New-Jersey, Pennsylvania, Virginia, Mississippi, Missouri, Ohio, Indiana, Illinois, Kentucky, Michigan, Wisconsin, California; and at the Fairs of the American Institute, New-York; Mechanics' Association, Boston; Franklin Institute, Philadelphia; Metropolitan Mechanics' Institute, Washington; Mechanics' Institute, Baltimore; Mechanics' Association, Cincinnati; Kentucky Institute, Louisville; Mechanical Association, St. Louis; Mechanics' Institute, San Francisco, and at hundreds of County Fairs.

"There is no better family machine than this made, as we have proved by nearly three years' use in our own family. We want no better."—*American Agriculturist*, December, 1860.

Office, 505 Broadway, New-York
SEND FOR A CIRCULAR.

No Radical Changes to be made in the American Agriculturist.

An intimation near the close of last volume, that we intended a little change in making up this journal, called forth prompt and strong protests from some of our long-time readers, who say: "give us the paper as it has been in the past." We therefore take occasion to say that we intended no radical changes in the form, style, or general character of the *Agriculturist*. We only meant to intimate that instead of devoting the entire paper to original practical essays, we should aim to give more gleanings from various sources not so much looked to hitherto, such as letters from correspondents, the different agricultural and other journals, tours of inspection, etc. We are providing for the regular receipt of full fifty of the best agricultural journals published in this country and Europe, besides 2000 other periodicals. Our "busy season" extends about from Nov. 15, to Feb. 15th, during which time the editorial force must be partly engaged in attending to correspondence, seed distribution, business letters, etc. This over with, we shall, with our additional editorial aid in the office, be able to examine more carefully our large files of journals, especially those treating on agricultural, horticultural, and household topics, and to glean from them whatever may be of special interest and value. Our

readers will thus get the cream of a large mass of published matter. This will not, however, necessitate any material change in the contents or character of the *Agriculturist*.

PREMIUMS FOR 1861.**Vol. XX.**

After close figuring, and liberal terms from manufacturers, we find we can fully keep up the character of our paper, and even improve it, and yet offer the large premiums named below. These articles are offered as direct pay for time spent in canvassing for names. This year we make no distinction between new and old subscribers, though it is supposed that every canvasser will not only gather up the names of old subscribers, but also secure a large number of new names.

In selecting articles for premiums, we have aimed to get such as are useful and as have been most frequently called for by our readers. We wish it distinctly understood that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made or second-hand thing, will be sent out, but each article offered, is the best of its kind, and every one will be selected by the publisher from the very best manufactured. They will be the best sold in the market at the prices named.

We offer nothing for competition. Each premium is for a specified number of subscribers, and no one's remuneration will depend upon what other unknown persons are doing. Every one aiming for a premium, knows just what he or she is working for; and also that if a higher premium is not secured, a lower one can be taken.

Any extra specimen copies, or show bills, needed by canvassers, will be freely furnished. We have a very attractive show bill for 1861.

Only one premium can be paid on the same subscriber.

Every person collecting names for premiums, can send the names with the money as fast as obtained, so that the subscribers may begin to receive their papers; but if designed for premiums, two copies of each list of names should be sent, one of them marked at the top, "For premiums," also with the name of the sender. These duplicate lists will be kept on file by themselves, to be referred to in making up the premium when any person has completed sending in names for Volume XX.

The premiums are offered for subscribers for Volume XX (1861), whenever received. Canvassers will have time for completing their lists, but the premium will be paid as soon as any list is made up—if duplicate lists are sent, to refer to at once.

Clubs need not be confined to one Post Office.

No premium is sent till specifically asked for, as we have many friends who send in large lists but will take no premium, and we are not certain that premiums are desired, unless the fact be mentioned particularly.

It is believed that all can recommend this journal to their friends and neighbors, and urge them to take and read it. It will continue to be independent, out-spoken, and reliable, the special friend, advocate, and promoter of the farmer's interest, and will aim to facilitate and lighten the labors of every household. A larger number of instructive as well as pleasing engravings, and a greater amount of really useful information, will be given in volume twenty, than in any preceding one. Onward, upward, is our motto.

Premiums A, to J, are offered for subscribers at the lowest club price (80c.), or at the regular price (\$1). Any person who has commenced sending in names at 80c., and finally falls to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

Premium A.

130 Subscribers at 80 cents each, (or 90 at \$1 each.) will entitle the person getting up the club to one of *Wheeler & Wilson's* best \$45 Sewing Machines, (including *Hemmers*) new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by three years' use in our own family. We want no better.—The machines will be selected now at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using, go with each machine.

Premium B.

130 Subscribers at 80 cents each, (or 90 at \$1 each.) will entitle the person getting up the club to a set of *Appleton's New American Cyclopaedia*, now in course of publication, consisting of fifteen large volumes of 770 pages each. This is a magnificent work, forming a whole library embracing every topic of human knowledge. Eleven volumes are now ready, and the remaining four will be furnished as fast as issued. Price, \$45.

Premium C.

98 Subscribers at 80 cents each, (or 60 at \$1 each.) will entitle the person getting up the club to one of *Willcox & Gibbs' \$35 Sewing Machines*, including a set of *Hemmers*. This is the best machine of its kind, (sowing with one thread), and has several points superior to others. It is neat, well made, simple in its operation, and having tested one for some time past in our own family, we can recommend it to those who can not afford to buy the higher priced double-thread machines. (The regular price of this machine is \$40, but we have included in our offer \$5 extra for the set of *Hemmers*, because those used with this machine are very simple and effective, and should go with every one sent out.)

The machines given as premiums, will be selected new at the factory, be well boxed, and will be forwarded to the recipient free of expense, except for freight after leaving the city. They will go out set up ready for use, with printed directions for operating.

Premium D.

65 Subscribers at 80 cents each, (or 33 at \$1 each.) will entitle the person getting up the club to one of the New \$10 Wringing Machines, described on page 247 of the August *Agriculturist*. This is one of the best labor-saving inventions of the day, and we unhesitatingly say that it will pay to have one to assist in the washing of every family, even if of only moderate size. We would not take \$20 for our machine, if another could not be purchased.

Premium E.

45 Subscribers at 80 cents each, (or 30 at \$1 each.) will entitle the person getting up the club to one of *Kendall's Aneroid Barometers*, described on page 232 of the August *Agriculturist*. This is a good portable instrument, and valuable to every person as a weather guide, as well as for scientific purposes. (New price \$7.50.)

Premium F.

50 Subscribers at 80 cents each, (or 25 at \$1 each.) will entitle the person getting up the club to one of the best \$5 Straw and Hay Cutters. [If preferred, the best \$8 Subsoil Plow (two-horse) will be given.]

Premium G.

42 Subscribers at 80 cents each, (or 19 at \$1 each.) will entitle the person getting up the club to the new and enlarged 804 Pictorial Edition of *Webster's Unabridged Dictionary*. This standard work comprises 1748 large 3-column pages. It is not only an ornament to every house, but is of great practical use; and its full definitions place it next to the *Cyclopaedia* as a source of general information. It weighs 8½ lbs., and can go by express; or be sent by mail for 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles.

Premium H.

40 Subscribers at 80 cents each, (or 21 at \$1 each.) will entitle the person getting up the club to one of the best \$6½ Hand Corn Shellers—a convenient, effective, and useful implement.

Premium I.

30 Subscribers at 80 cents each, (or 16 at \$1 each.) will entitle the person getting up the club to one extra copy of Vol. XX, and also to the 4 previous unbound Volumes of the *American Agriculturist*, (16, 17, 18, 19,) sent post paid.

Premium J.

25 Subscribers at 80 cents each, (or 13 at \$1 each.) will entitle the person getting up the club to a Pocket Microscope with the celebrated "hour-glass," or Coddington lens, in a solid silver case. Sent post-paid.

Premium K.

25 Subscribers at 80 cents each, will entitle the person getting up the club to an extra copy of Vol. XX, and also to any three of the unbound volumes 16, 17, 18, and 19 sent post paid. 20 Subscribers at 80 cents each to an extra copy of Vol. XX, and two of those volumes. 15 Subscribers at 80 cent each, to an extra copy of Vol. XX, and one of the previous volumes.

Premium L.

20 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Winsor & Newton's Water Color Paints*—consisting of 12 colors, put up in a neat mahogany case, with brushes, etc. These Paints are imported from London, and are by all considered the best in the world. They are adapted to the finest work, or they will make a neat and appropriate present to any of our younger readers. They will be sent post-paid any where within 3000 miles. (If to go to the British Provinces or to the Pacific Coast, the recipient will need to send 84 cents for the extra postage required above the 6 cents per ounce which we pay. This and the next premium, if sent with our box of seeds going to California in February, can go without the extra postage.

Premium M.

15 Subscribers at 80 cents each, will entitle the person getting up the club to an Assortment of *Osborne & Hodgkinson's Water Color Paints*, consisting of 24 colors or shades, put up in a mahogany case with brushes, cups, etc. These are of American manufacture, and though not so fine as the above, they will answer for ordinary practice by children or beginners, and for common sketching. They will also be sent by mail, post-paid. (If to go to the British Provinces, or to the Pacific Coast, \$1.05 will need to be sent by the recipient to pay the extra postage above 6 cents per ounce.)

Premium N.

10 Subscribers at 80 cents each, will entitle the person getting up the club to any one of the four previous unbound volumes (16, 17, 18, 19,) sent post-paid.

Premium O.

237 Subscribers at 80 cents each (or 125 at \$1 each.) will entitle the person getting up the club to one of *Geo. A. Prince & Co.'s \$75 Melodcons* (5 octaves). These Melodcons are of very superior tone and finish. We have ourselves used one (costing \$150) for two years past, and it has given the highest satisfaction, and is pronounced by all who have heard it, as one of the very best. The different priced instruments are of equally good tone—the price varying with the size and style of finish. The size, prices, etc., of these instruments can be learned particularly by sending a stamp to Geo. A. Prince & Co., Buffalo, N. Y., for an illustrated descriptive catalogue. The instruments given as Premiums, will be sent new directly from the factory at Buffalo, ready boxed, and without extra expense to the recipient, except for freight after leaving the factory.

The above premium list may be made up by the

members of a congregation, or Sabbath School, and an instrument thus secured for a church or school-room.

Premium P.

193 Subscribers at 80 cents each (or 105 at \$1 each) will entitle the person getting up the club to one of Geo. A. Prince & Co.'s \$60 Melodeons (4½ octaves.) See remarks above.

Premium Q.

170 Subscribers at 80 cents each (or 90 at \$1 each), will entitle the person getting up the club to one of Geo. A. Prince & Co.'s \$45 Melodeons (4 octaves.) See remarks above. N. B.—Higher priced Melodeons will be given for larger lists, in the same proportion.

Book Premiums.

Valuable Book Premiums.—Instead of the above premiums, any person getting up a club of 20 or more names may choose any desired Books from the list (advertised on page 350 of Nov. No.) to the amount of 12½ cents for each name forwarded at 80 cents, (or 32½ cents for each name sent at \$1), and the books will be sent post-paid. (If to go over 3000 miles, the recipient will need to send 30 cents for extra postage on each dollar's worth of books.) Persons making up a club for any of the above premiums, and getting some names over the required amount, will be entitled to books for the surplus names.

Clubs.

Can at any time be increased, by remitting for each addition, the price paid by the original members—provided the subscriptions all date back to the same starting point. The back numbers will, of course, be sent to added names.

A Capital Present.

A year's subscription to the *American Agriculturist*. Every successive number is a fresh present. It is a good way to do a favor to distant relatives and friends, as well as to friends and neighbors near at hand.

Please Remember the German Edition.

We are publishing, at a good deal of expense, a complete edition of the *Agriculturist* in the German Language, every way equal to the English Edition. Will our friends please remind their German neighbors of the fact.

Missing Numbers Supplied.

Any copy of the *Agriculturist*, falling to reach a subscriber through carelessness of the mails will be cheerfully replaced without charge. Copies received, and afterwards lost or spoiled, will be supplied at the regular rates.

Market Review, Weather Notes, etc.

AMERICAN AGRICULTURIST OFFICE,
New-York, Wednesday, Dec. 19, 1860.

The political excitement, and the consequent financial disturbance, have materially affected the markets for Breadstuffs, and farm produce generally, in common with all other business. There is an abundance of flour, wheat and corn in the country, and a large demand for them abroad, but the difficulty has been to obtain the requisite funds or credit to move them. In the usual course of trade, exporters send breadstuffs, cotton, &c., abroad, and draw 60-day drafts upon the proceeds. These drafts, constituting foreign exchange, are sold to importers of foreign goods, and the proceeds used in paying for the crops brought from the interior. Owing partly to the disturbances resulting from a senseless fright or panic, and partly to the fact that our exports have exceeded the imports, and thus brought England in debt to us, it has been next to impossible to sell the exchange, or drafts. This has of course crippled the dealers here, and stopped their purchases from producers, who in turn have been unable to pay their home merchants, and they have of course been prevented from paying their indebtedness to the City importers and jobbers, and these last have been compelled to diminish their foreign orders for goods, reducing still further their ability to purchase exchange. The whole business, thus connected by a continuous chain, is weakened by a defect in any one of its links. The dead lock is now being loosened by the forwarding of gold from England to purchase breadstuffs, cotton, etc., and business is reviving somewhat. From the above causes, the movements in breadstuffs have not been active during the month. Holders have been forced to sell their stocks of flour, wheat, corn, and cotton, at whatever prices they could get; to raise the means to meet their liabilities in the West and South, for which they had accepted drafts drawn by the country dealers. This pressure to sell has depressed prices; and in some cases the loss has been so severe that dealers have been seriously crippled, and two or three leading houses, and several smaller ones, have suspended payment. The better feeling now springing up, induced by large receipts of foreign gold, and by the fact that people are getting used to the panic, and are caring less for it, is having a favorable effect upon the markets, and prices are looking upward. Holders are not anxious to sell. The fact that Great Britain must yet draw largely upon us for food, and send gold to pay for it, will cause our dealers to hold firmly for better prices,

especially as no very great supplies can be received from the West until Spring navigation opens. The operation of the "panic" checked the receipts even before canal navigation closed, and only small lots have since come forward by railroad. The stocks here are pretty large, but the demand for Eastern consumption and for export will soon reduce them; and if the political excitement shall in a measure cease, high prices are likely to prevail here before Spring. This will lead to the forwarding of grain, flour and corn somewhat earlier by the railroads. On the whole, though the delay, loss, and present embarrassment are great, we can read no gloomy indications for farmers in the future. There is just as much money, and as much produce, and as great a foreign want of it, as before the great "scare," and things will right themselves ere long. The present prices—which are better than a week since, and those current a month ago, are indicated in the table below.

CURRENT WHOLESALE PRICES.

	Nov. 17.	Dec. 19.
Flour—Superior to Extra State	\$5 15 @ 5 60	\$4 65 @ 5 15
Superior Western	5 15 @ 5 25	4 00 @ 4 45
Extra Western	5 40 @ 5 25	5 00 @ 5 00
Fancy to Extra Genesee	5 12 @ 5 25	5 90 @ 7 00
Superior to Extra Southern	5 50 @ 5 50	4 90 @ 7 00
Rye Flour—Fine and Super.	3 50 @ 4 25	3 20 @ 4 00
Corn Meal	3 30 @ 3 70	3 00 @ 3 40
Wheat—Canada White	1 40 @ 1 45	1 25 @ 1 30
Western White	1 37 ½ @ 1 39	1 27 @ 1 40
Southern White	1 42 ½ @ 1 55	1 30 @ 1 40
All kinds of Red	1 15 @ 1 35	1 05 @ 1 20
Corn—Yellow	72 @ 80	64 @ 66
White	72 @ 80	63 @ 68
Mixed	69 ½ @ 71	62 @ 64
Oats—Western	37 @ 37 ½	37 @ 38
State	37 ½ @ 38	38 @ 38 ½
Southern	36 @ 37	35 @ 37
Rye	70 @ 72	63 @ 66
Barley	65 @ 80	70 @ 82
HAY, in bales, per 100 lbs	80 @ 1 06 ½	75 @ 1 00
COTTON—Middling, per lb.	11 ½ @ 11 ½	10 ½ @ 10 ½
Rice, per 100 lbs	4 00 @ 4 75	2 50 @ 3 75
Hops, crop of 1860, per lb.	35 @ 42	25 @ 32
PORK—New Mess, per bbl.	18 25 @ 18 50	16 00 @ 16 25
Prime, new, per bbl.	12 50 @ 11 50	11 50 @ 11 75
BEEF—Repacked mess	7 00 @ 10 00	9 25 @ 10 00
Country mess	5 00 @ 5 50	5 00 @ 5 25
LARD, in bbls, per lb.	11 @ 12	10 ½ @ 10 ½
BUTTER—Western, per lb.	15 @ 20	15 @ 20
State, per lb.	15 @ 20	15 @ 20
CHEESE	9 @ 11	9 @ 11
Eggs—Fresh, per dozen	20 @ 21	21 @ 25
Western, per doz.	16 @ 19	18 @ 22
POULTRY—Fowls, per lb.	10 @ 14	7 @ 12
Chickens, per pair	50 @ 56	9 @ 12
Geese, per lb.	8 @ 10	6 @ 10
Ducks, per lb.	12 @ 14	10 @ 12
Turkeys, per lb.	11 @ 14	10 @ 12
Partridges, per pair	62 @ 68	50 @ 62
FRUIT, Live Geese, p. lb.	45 @ 58	44 @ 50
SEED—Clover, per lb.	9 ½ @ 10 ½	7 ½ @ 8 ½
Timothy, per bushel	2 75 @ 3 00	2 50 @ 2 75
SCOTCH—Brown, per lb.	5 ½ @ 8 ½	5 ½ @ 8 ½
MOLASSES, New Orleans, p. gal.	40 @ 45	30 @ 35
COFFEE, Rio, per lb.	11 ½ @ 14 ½	10 ½ @ 13
TOBACCO—Kentucky, &c, p. lb.	3 @ 13	2 ½ @ 13
Seed Leaf, per lb.	5 @ 5	5 @ 5
WOOL—Domestic fleece, p. lb.	34 @ 58	32 ½ @ 57 ½
Domestic, pulled, per lb.	28 @ 46	27 ½ @ 45
HEMP—Undr'd Am., per tun.	150 @ 160	145 @ 160
Dressed American, per tun.	150 @ 160	145 @ 160
TALLOW, per lb.	10 ½ @ 10 ½	9 @ 9 ½
OIL CAKE, per tun.	100 @ 100	28 @ 30
APPLES, Prime, per bbl.	1 75 @ 2 00	1 50 @ 2 00
Medium, per bbl.	1 50 @ 2 00	1 25 @ 1 50
Common, per bbl.	75 @ 1 00	50 @ 1 00
Extra Dessert Apples	3 ½ @ 5	3 @ 4
Dried Apples, per lb.	10 @ 13	5 @ 12 ½
POTATOES—Mercers, per bbl.	1 25 @ 2 00	2 00 @ 2 50
Peach Blows, per bbl.	1 25 @ 1 50	1 75 @ 2 25
Sweet, Virginia, per lb.	3 00 @ 3 25	3 25 @ 3 50
Delaware and N. Jersey, per lb.	3 00 @ 3 25	3 30 @ 4 00
ONIONS, Red, per bbl.	1 25 @ 1 38	1 75 @ 2 12
White, per bbl.	2 00 @ 2 50	2 50 @ 3 50
TURNIPS, per bbl.	65 @ 1 00	75 @ 1 12
CABBAGES, per 100	3 50 @ 3 00	4 00 @ 8 00
SQUASHES, per bbl.	75 @ 87	1 50 @ 2 00
PUMPKINS, per 100	4 00 @ 5 00	6 00 @ 12 00
CRANBERRIES, Eastern, per bbl.	10 00 @ 12 00	10 00 @ 12 00
Western, per bbl.	7 00 @ 10 00	8 00 @ 10 00
CELERY, per dozen	50 @ 50	75 @ 1 00

TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	Flour, Wheat, Corn, Rye, Barley, Oats.
25 days this month	489,800 3,691,500 738,000 14,129 167,800 81,700
25 days last month	555,508 3,827,254 910,361 38,125 429,019 388,225
SALES.	Flour, Wheat, Corn, Rye, Barley.
25 days this month	325,000 1,732,000 1,240,000 23,150 342,000
25 days last month	508,310 4,267,500 2,147,500 115,400 634,700
Exports of Breadstuffs from New York, Jan. 1 to Dec. 12.	
Wheat Flour, bbls.	836,970
Rye Flour, bbls.	5,608
Corn Meal, bbls.	75,670
Wheat, bush	202,026
Corn, bush	179,929

The receipts at tide-water of the principal kinds of Breadstuffs from the opening of the Canals to and including the 7th of December, have been as follows:

	1860.	1859.	1858.
Canal open.	April 25.	April 15.	April 28.
Flour bbls.	1,175,100	903,296	1,860,300
Wheat, bush.	19,557,400	5,110,533	8,232,700
Corn, bush	14,290,800	2,466,207	6,697,700
Barley, bush.	2,871,600	3,305,279	3,422,300
Rye, bush.	336,600	392,700	507,600
Oats, bush.	6,717,600	6,403,400	5,127,100

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been less crowded for two weeks past, and prices have advanced moderately. During five weeks ending to-day (Dec. 19), the receipts have been 23,748 or 4,750 per week, against over 5,000 per week, for the previous month. Much of the stock has been poor, and sold at low rates. At to-day's general market, with 4,479 bullocks on sale, many of which were of prime quality, designed for Christmas show beef, sales were pretty brisk at

11c. @ 12½c. per lb., dressed weight, for extra or premium beeves.—9½c. @ 10c. for first quality—7½c. @ 8½c. for fair to good—5c. @ 7c. for poor—Average 8c.

VEAL CALVES.—Receipts have been light, numbering only 2,579 for the past five weeks, or 516 per week. Prices are low, however, very few calves bringing 7c. per lb., live weight; most go at 5c. @ 6½c.

SHEEP AND LAMBS have come in moderately, the receipts for the past five weeks being but 49,269, or a weekly average of 9,854, against over 13,000 last month. The lack in numbers is made up, in part, by extra size and fatness, especially this week of Christmas mutton. One lot of 100 head has just been sold at \$925, or about 7c. per lb. live weight; 14 head averaging 210 lbs. alive, sold for \$18 each, while single animals are reported at \$25, and even \$33 per head. Of course they were very large and very fat, such as are only seen Christmas week. Fair lots of sheep which will dress 60 lbs., are worth 5c. @ 5½c. per lb. live weight. The market is quite brisk just now.

LIVE HOGS.—Receipts since our last report amount to 65,030, or 12,606 per week. The market is overstocked just now, over 15,000 having been received during the past week. Packers take most of them at 4½c. @ 5½c. per lb. live weight for corn fed, and 4½c. @ 4¾c. for still hogs, which is fully 1c. per lb. lower than last reported.

The Weather, since our last report, has generally been fine, with a gradual hardening into genuine Winter. Little snow has fallen just here, thus far.—Our DAILY WEATHER NOTES, condensed, read thus: November, 20, 21, 22, clear, fine, cool—23, rainy day—24, clear, cool—25, cold, mercury, 15°—26, clear and cool, rain at night—27, rain A. M., cloudy P. M.—28, cloudy, rain at night—29, fine—30, rain.—December, 1, cloudy, snow at night—2, cool and cloudy, ground white with snow, but soon disappeared—3, clear, fine—4, snow and rain—5, clear, 2 inches snow, making poor sleighing for a short time—6, clear and fine—7, cloudy—8, snow storm A. M., cloudy P. M., 4 inches snow on ground, and fair sleighing—9, clear, fine, cool—10, cloudy A. M., rain P. M., and at night, carrying off most of the snow—11, to 14, clear and cool—15, coldest day of the season, mercury 10°—16, 17, 18, clear and fine, milder but still cold—19, cold rain.

Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit).—r indicates rain, s, snow.]

NOVEMBER.									
1.....	61r	7.....	39	13.....	45	19.....	44r	25.....	18
2.....	6	8.....	38	14.....	41	20.....	43	26.....	24
3.....	62r	9.....	40r	15.....	41	21.....	35	27.....	48r
4.....	54	10.....	51r	16.....	40	22.....	30	28.....	39
5.....	42r	11.....	46r	17.....	42	23.....	32r	29.....	39
6.....	52r	12.....	45r	18.....	46r	24.....	41r	30.....	39r
DECEMBER.									
1.....	38s	4.....	34s	7.....	32	10.....	32s	13.....	34
2.....	30	5.....	28	8.....	33s	11.....	36	14.....	16
3.....	32	6.....	29	9.....	23	12.....	28	15.....	12

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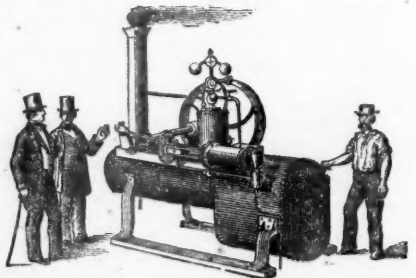
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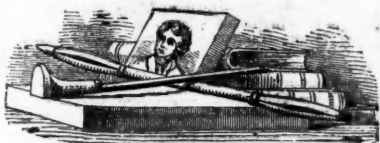
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JAN.	6	7	8	9	10	11	12	JULY.	7	8	9	10	11	12	13
FEB.	13	14	15	16	17	18	19	AUG.	14	15	16	17	18	19	20
MARCH.	20	21	22	23	24	25	26	SEPT.	21	22	23	24	25	26	27
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